

Mathematics 2022 State Report Appendix

Appendix

Technical Procedures for the NAEP 2022 Mathematics Assessment

This appendix provides an overview of some of the technical procedures for the NAEP 2022 mathematics assessment. Information is included about the content of the assessment, school and student samples and participation, inclusion of students with disabilities and/or English learners, analysis procedures, and interpretation of results. Additional technical information about NAEP assessments is available on the Web at <https://nces.ed.gov/nationsreportcard/tdw/>.

Development of the Mathematics Framework

The National Assessment Governing Board oversees the creation of the NAEP frameworks that provide the theoretical basis for the assessment, the direction for what types of items should be included, and how the items should be designed and scored. While the frameworks describe the general content and design of NAEP subject area assessments, the specifications provide the detailed information used by test developers for constructing the assessments. Both the *Mathematics Framework for the National Assessment of Educational Progress and Assessment and Item Specifications for the NAEP Mathematics Assessment* are available on the Governing Board's website at <https://www.nagb.gov/naep-frameworks/mathematics.html>.

The frameworks for the main NAEP assessments are periodically updated or changed to reflect current curricula and standards. Whenever changes are made to a subject framework, every effort is made to try to maintain the trend lines that permit the reporting of changes in student achievement over time. If, however, the nature of the changes made to an assessment are such that the results would not be comparable to earlier assessments, a new trend line is started.

The 1990 and 1992 mathematics frameworks reflected a two-dimensional "content by ability" matrix design in which questions were classified according to one of five content areas and one of three types of mathematical abilities (conceptual understanding, procedural knowledge, and problem solving). A third dimension, mathematical power (reasoning, connections, and communication), was introduced in the 1996 framework to form a "content by mathematical ability by mathematical power" matrix design that also guided the development of the 2000 and 2003 assessments.

For the 2005 framework, the dimensions of mathematical ability and power were replaced with the dimension of mathematical complexity, which indicates the level of cognitive demand (low, moderate, or high) of each item. In addition, the proportions of assessment questions by content area were changed for grade 8 to reflect the increasing importance of algebraic concepts, and for grade 12 to correspond more closely to the mathematics that high school students experience in a three-year sequence of courses (the equivalent of one year of geometry and two years of algebra). Because of changes in the framework and in administration procedures for grade 12, results from the 2005 twelfth-grade assessment could not be compared to results from previous years. A new trend line was started for grade 12 in 2005, and new mathematics achievement-level descriptions were applied.

There were no changes to the objectives at grades 4 and 8. The 2009 framework was unchanged for the 2011, 2013, 2015, 2017, 2019, and 2022 assessments. In 2011, 2017 and 2022, only the grade 4 and grade 8 assessments were administered, but in 2013, 2015, and 2019 the grade 4, grade 8, and grade 12 assessments were administered.

Content Areas and Mathematical Complexity

The mathematics framework classifies assessment questions in two dimensions, content area and mathematical complexity, that are used to guide the assessment. Each question is designed to measure one of the five mathematics content areas.

Content Areas: Although the names of the content areas have changed from one framework to the next, there is a consistent focus across frameworks on collecting information on student performance in five key areas:

- number properties and operations
- measurement
- geometry
- data analysis, statistics, and probability
- algebra

Certain aspects of mathematics, such as computation, occur in all content areas. Although the names of the content areas (as well as some topics in those areas) have changed from one framework to the next, a consistent focus has remained on measuring student performance in all five content areas. The distribution of questions among each content area differs by grade to reflect the knowledge and skills appropriate for each grade level (table A-1). At grade 12, the measurement and geometry content areas are combined into one for reporting purposes to reflect the fact that the majority of measurement topics suitable for grade 12 students are geometric in nature. Students at grade 12 are provided with a [reference sheet](#) containing selected formulas related to geometry, trigonometry, conic sections, interest rates, series, and combinations and permutations.

These divisions are not intended to separate mathematics into discrete elements. Rather, they are intended to provide a helpful classification scheme that describes the full spectrum of mathematical content assessed by NAEP.

Table A-1. Target percentage distribution of questions in NAEP mathematics, by grade and content area: Various years, 1990–2022

Grade and content area	1990 and 1992	1996, 2000, and 2003	2005–2022	Content area ¹
Grade 4				
Number sense, properties, and operations	45	40	40	Number properties and operations
Measurement	20	20	20	Measurement
Geometry and spatial sense	15	15	15	Geometry
Data analysis, statistics, and probability	10	10	10	Data analysis, statistics, and probability
Algebra and functions	10	15	15	Algebra
Grade 8				
Number sense, properties, and operations	30	25	20	Number properties and operations
Measurement	15	15	15	Measurement
Geometry and spatial sense	20	20	20	Geometry
Data analysis, statistics, and probability	15	15	15	Data analysis, statistics, and probability
Algebra and functions	20	25	30	Algebra

¹ The content area labels were revised in 2005, but test item content remains comparable to previous years.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The data analysis, statistics, and probability content area was called data analysis and probability in the 2005 and 2007 frameworks. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.

Complexity: Items are also classified by [mathematical complexity](#).

- low complexity,
- moderate complexity, and
- high complexity

Mathematical complexity attempts to focus on the cognitive demands of the assessment question. Each level of complexity includes aspects of knowing and doing mathematics, such as reasoning, performing procedures, understanding concepts, or solving problems. The levels of complexity form an ordered description of the demands an item may make on a student. Items at the low level of complexity, for example, may ask a student to recall a property. At the moderate level, an item may ask the student to make a connection between two properties; at the high level, an item may ask a student to analyze the assumptions made in a mathematical model. This is an example of the distinctions made in item complexity to provide balance in the assessment. The ordering is not intended to imply that mathematics is learned or should be taught in such an ordered way.

The complexity dimension builds on the dimensions of mathematical ability (conceptual understanding, procedural knowledge, and problem solving) and mathematical power (reasoning, connections, and communication) that were used in the mathematics framework for the 1996-2003 NAEP assessments.

The mathematics framework specifies the [percentage of questions](#) devoted to each content area by grade.

[Sample Questions booklets](#) for the mathematics assessment are available for download.

Content of the 2022 Mathematics Assessment

Each NAEP assessment contains two major components: subject-specific cognitive items that measure the achievement of students in an academic subject; and noncognitive survey questions that are given to students, teachers, and school administrators who participate in the NAEP assessment. NAEP survey questionnaires collect additional information that helps put student achievement results into context and allows meaningful comparison between student groups. Both the cognitive and noncognitive items are developed through a process that includes reviews by external advisory groups and pilot testing. Results from the cognitive items provide information about what students know and can do in a subject area. Information from the background items gives context to NAEP results and/or allows researchers to track factors associated with academic achievement.

The number of questions in the 2022 mathematics assessment used for reporting results at each grade has remained relatively constant across assessment years. Students spend about one-half of the assessment time responding to multiple-choice questions and one-half responding to two types of constructed-response questions. Short constructed-response questions require students to provide answers to computation problems or to describe solutions in one or two sentences, while extended constructed-response questions require more detailed responses or explanations. Table A-2 shows the approximate percentage distribution of questions administered from 1990 to 2022 by the type of question for each grade level.

Table A-2. Percentage distribution of administered NAEP mathematics questions, by grade and question type: Various years, 1990–2022

Grade and question type	1990	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015	2017	2019	2022
Grade 4														
Multiple choice	71	61	51	60	63	64	69	68	70	70	70	59	57	57
Short constructed response	29	36	41	34	33	32	27	27	26	27	27	38	41	41
Extended constructed response	#	3	8	6	4	4	4	5	4	3	3	3	3	3
Grade 8														
Multiple choice	78	62	56	63	65	69	74	72	74	75	73	59	51	51
Short constructed response	22	34	38	32	29	28	23	23	23	22	24	39	46	46
Extended constructed response	#	3	7	6	5	4	4	4	3	3	3	2	3	3

Rounds to zero.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Short constructed-response questions included in the 1990 and 1992 assessments were scored dichotomously (i.e., credit or no credit). Beginning with the 1996 assessment, some of the new short constructed-response questions were scored allowing for partial credit. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.

Cognitive Blocks: The assessment design allowed for broad coverage of the five mathematics content areas and levels of mathematical complexity at each grade, while minimizing the time burden for any one student. This was accomplished through the use of matrix sampling of items in which each student was required to take only a small portion of the entire pool of assessment questions.

The mathematics item pool for each grade was divided up into subsets or "blocks." In 2022, there were a total of 14 cognitive blocks at fourth grade and 14 blocks at eighth grade. Each mathematics assessment form contained two separately timed 30-minute blocks. Each block contained between 14 and 21 questions depending on the balance between multiple-choice, selected-response, and constructed-response questions.

The procedure used for distributing blocks across forms controlled for position and context effects by balancing the positioning of blocks across forms and balancing the pairing of blocks within forms. The procedure also cycled the forms for administration so that no more than a few students in an assessment session received the same test form.

Sample released questions at all three grade levels can be viewed at the NAEP website at <https://nces.ed.gov/nationsreportcard/nqt>. Questions released from the 2005, 2007, 2009, 2011, 2013, 2017, and 2022 assessments are classified by content area and level of complexity. Those released from assessments administered in 2003 and earlier are classified by content area and mathematical ability. Items also may be sorted by difficulty and question type.

NAEP Samples

NAEP assesses representative samples of students rather than the entire student population. The sample selection process utilizes a probability sample design. In this type of sample, each school and each student has a known probability of being selected. Samples are selected according to a multistage design, with students drawn from within sampled public and private schools nationwide. The school probabilities are proportional to the estimated number of students in the grade assessed.

The Common Core of Data (CCD) file serves as the sampling frame for the selection of public schools in each state/jurisdiction. The CCD is a comprehensive list of operating public schools in each jurisdiction that is compiled each school year by the National Center for Education Statistics (NCES). The sample of students in districts participating in TUDA represents an augmentation of the sample of students selected as part of the state samples. All students at more local geographic sampling levels also make up part of the broader samples. For example, the TUDA samples are included as part of the corresponding state samples, just as the state samples are included as part of the national sample.

The Private School Survey (PSS) is a survey of all U.S. private schools carried out biennially by the Census Bureau under contract to NCES. The PSS serves as the sampling frame for private schools. While state and district results are based on samples of public schools only, the national results are based on the combined samples of both public and private schools.

Table A-3 shows the target populations and sample sizes in 2022 for the nation and participating states and jurisdictions at grades 4 and 8. Table A-4 shows the same information for participating urban districts for grades 4 and 8.

Because the schools and students who participate in the assessment represent only a portion of the larger population of interest, the assessment results are weighted to make appropriate inferences about the populations from the student, school, and district samples. Sampling weights are adjusted to account for the disproportionate representation of some groups in the selected sample. This includes oversampling of schools with high concentrations of students from certain racial/ethnic groups and the lower sampling rates of students who attend very small schools.

Table A-3. Student sample sizes and target populations in NAEP mathematics at grades 4 and 8, by state/jurisdiction: 2022

State/jurisdiction	GRADE 4		GRADE 8	
	Sample size	Target population	Sample size	Target population
Nation	119,500	3,701,000	114,700	3,938,000
Public	115,400	3,386,000	111,400	3,625,000
Private	1,700	308,000	1,500	307,000
Alabama	2,000	52,000	1,900	54,000
Alaska	1,800	8,000	1,600	8,000
Arizona	1,900	75,000	1,800	86,000
Arkansas	1,800	34,000	1,900	36,000
California	4,000	401,000	3,800	415,000
Colorado	2,600	61,000	2,400	62,000
Connecticut	1,800	35,000	1,700	38,000
Delaware	1,900	10,000	1,800	11,000
Florida	4,800	194,000	4,600	213,000
Georgia	2,800	125,000	2,700	132,000
Hawaii	1,800	13,000	1,800	13,000
Idaho	1,700	19,000	1,900	23,000
Illinois	2,800	121,000	2,800	141,000
Indiana	1,800	70,000	1,800	77,000
Iowa	1,900	34,000	1,800	36,000
Kansas	1,900	32,000	1,900	35,000
Kentucky	2,400	41,000	2,400	48,000
Louisiana	1,800	47,000	1,800	48,000
Maine	1,800	11,000	1,700	13,000
Maryland	2,600	60,000	2,500	68,000
Massachusetts	2,800	67,000	2,600	68,000
Michigan	2,700	94,000	2,600	104,000
Minnesota	2,000	62,000	1,600	61,000
Mississippi	2,000	31,000	1,800	36,000
Missouri	1,800	61,000	1,900	68,000
Montana	1,900	11,000	1,700	11,000
Nebraska	2,000	22,000	1,900	24,000
Nevada	2,100	35,000	2,000	37,000
New Hampshire	1,800	12,000	1,700	14,000
New Jersey	1,800	89,000	1,800	99,000
New Mexico	2,200	21,000	2,300	24,000
New York	2,400	181,000	2,300	186,000
North Carolina	3,600	110,000	3,400	114,000
North Dakota	1,800	9,000	1,800	8,000
Ohio	2,400	105,000	2,500	118,000
Oklahoma	1,900	46,000	1,800	49,000
Oregon	1,800	39,000	1,700	41,000
Pennsylvania	2,700	116,000	2,500	129,000
Rhode Island	2,000	10,000	1,900	10,000
South Carolina	1,900	53,000	1,800	57,000
South Dakota	1,900	10,000	1,900	11,000
Tennessee	2,500	72,000	2,500	72,000
Texas	6,100	386,000	5,600	399,000
Utah	1,900	46,000	1,800	51,000
Vermont	1,800	6,000	1,900	6,000
Virginia	1,800	89,000	1,800	94,000
Washington	1,900	75,000	1,900	82,000
West Virginia	1,800	17,000	1,900	19,000
Wisconsin	2,400	53,000	2,600	64,000
Wyoming	1,800	7,000	1,800	7,000
Other jurisdictions				
BIE ¹	< 50	2,000	100	2,000
District of Columbia	1,800	6,000	1,600	5,000
DoDEA ²	2,500	6,000	1,700	4,000
Puerto Rico	3,100	17,000	3,200	20,000

¹ Bureau of Indian Education.² Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample size and target population. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand. Data for BIE and DoDEA schools are counted in the overall national totals, but not in the public school totals. Data for the District of Columbia public schools are counted, along with the states, in the national public school totals. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-4. Student sample sizes and target populations for Trial Urban District Assessment (TUDA) in mathematics at grades 4 and 8, by urban district: 2022

Urban district	GRADE 4		GRADE 8	
	Sample size	Target population	Sample size	Target population
Albuquerque	900	6,000	900	6,000
Atlanta	1,000	4,000	900	4,000
Austin	1,000	5,000	900	5,000
Baltimore City	900	5,000	900	5,000
Boston	1,000	3,000	900	3,000
Charlotte	1,000	10,000	1,000	11,000
Chicago	1,300	22,000	1,400	26,000
Clark County (NV)	1,400	22,000	1,300	23,000
Cleveland	800	3,000	800	3,000
Dallas	900	10,000	900	9,000
Denver	900	6,000	900	7,000
Detroit	900	4,000	800	3,000
District of Columbia (DCPS)	1,100	4,000	800	3,000
Duval County (FL)	900	9,000	900	9,000
Fort Worth	1,000	5,000	900	5,000
Guilford County (NC)	900	5,000	900	5,000
Hillsborough County (FL)	1,000	16,000	900	16,000
Houston	1,400	15,000	1,300	11,000
Jefferson County (KY)	900	6,000	900	7,000
Los Angeles	1,400	33,000	1,400	31,000
Miami-Dade	1,500	23,000	1,400	25,000
Milwaukee	800	5,000	800	5,000
New York City	1,300	59,000	1,300	63,000
Philadelphia	900	9,000	800	8,000
San Diego	900	7,000	900	6,000
Shelby County (TN)	900	8,000	900	7,000

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample size and target population. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

School and Student Participation

National Participation

To ensure unbiased samples, NAEP requires that participation rates be 70 percent or higher to report national results separately for public and private schools. In instances where participation rates meet the 70 percent criteria but fall below 85 percent, a nonresponse bias analysis is conducted; however, results may still be reported.

National school and student participation rates for the 2022 mathematics assessment are presented in table A-5. Student-weighted school participation rates were 94 percent for grade 4 (100 percent for public schools and 37 percent for private schools) and 95 percent for grade 8 (100 percent for public schools and 35 percent for private schools).

State and District Participation

Standards established by the Governing Board require that school participation rates for the original state and district samples need to be at least 85 percent for results to be reported. In 2022, all 52 states and jurisdictions participating in the mathematics assessment at grades 4 and 8 met this participation rate requirement (tables A-6 through A-7). The 26 urban districts participating at grades 4 and 8 also met the criteria for reporting (table A-8).

Table A-5. National school and student participation rates in NAEP mathematics, by grade and type of school: 2022

Grade and type of school	SCHOOL PARTICIPATION					STUDENT PARTICIPATION	
	STUDENT-WEIGHTED		SCHOOL-WEIGHTED		Number of schools participating after substitution	Student-weighted percent	Number of students assessed
	Percent before substitution	Percent after substitution	Percent before substitution	Percent after substitution			
Grade 4							
Nation	94	95	83	84	5,780	92	116,200
Public	100	100	100	100	5,550	92	112,100
Private	37	42	34	38	150	94	1,600
Grade 8							
Nation	95	95	74	76	5,190	89	111,000
Public	100	100	100	100	5,010	89	107,700
Private	35	40	33	37	130	94	1,500

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The national totals for schools include Department of Defense Education Activity (overseas and domestic schools) and Bureau of Indian Education schools, which are not included in either the public or private school totals. The national totals for students include students in these schools. Columns of percentages have different denominators. The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-6. Public school and student participation rates in NAEP mathematics at grade 4, by state/jurisdiction: 2022

State/jurisdiction	SCHOOL PARTICIPATION			STUDENT PARTICIPATION	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Nation (public)	100	100	5,550	92	112,100
Alabama	100	100	90	95	2,000
Alaska	99	94	120	89	1,700
Arizona	100	100	90	93	1,900
Arkansas	100	100	80	93	1,800
California	100	100	180	92	3,900
Colorado	99	98	120	91	2,500
Connecticut	100	100	80	92	1,800
Delaware	100	100	70	91	1,800
Florida	100	100	210	92	4,600
Georgia	96	96	120	93	2,700
Hawaii	100	100	90	89	1,700
Idaho	100	100	90	93	1,700
Illinois	100	100	140	91	2,800
Indiana	99	99	80	93	1,800
Iowa	99	99	90	93	1,800
Kansas	100	100	100	93	1,900
Kentucky	100	100	110	95	2,400
Louisiana	100	100	80	92	1,800
Maine	100	100	100	90	1,700
Maryland	100	100	120	92	2,500
Massachusetts	100	100	130	93	2,700
Michigan	100	100	130	91	2,600
Minnesota	100	100	90	91	1,900
Mississippi	100	100	90	93	2,000
Missouri	100	100	90	94	1,700
Montana	100	99	120	90	1,800
Nebraska	100	100	100	95	1,900
Nevada	100	100	90	92	2,100
New Hampshire	99	99	100	87	1,800
New Jersey	99	99	80	92	1,800
New Mexico	100	100	110	91	2,200
New York	96	96	120	86	2,400
North Carolina	100	100	160	91	3,500
North Dakota	99	97	110	90	1,800
Ohio	100	100	130	93	2,400
Oklahoma	100	100	90	94	1,800
Oregon	100	100	90	88	1,800
Pennsylvania	100	100	120	93	2,600
Rhode Island	100	100	90	94	1,900
South Carolina	100	100	90	93	1,800
South Dakota	100	100	120	94	1,900
Tennessee	100	100	120	92	2,500
Texas	100	100	260	93	5,800
Utah	100	100	80	92	1,900
Vermont	100	100	130	89	1,700
Virginia	100	100	80	92	1,700
Washington	100	100	90	89	1,900
West Virginia	100	100	100	93	1,800
Wisconsin	100	100	130	90	2,300
Wyoming	99	99	90	90	1,700
Other jurisdictions					
District of Columbia	100	100	90	88	1,700
DoDEA ¹	95	92	80	89	2,400
Puerto Rico	100	100	150	92	3,100

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. The school participation rates are student-weighted percentages before substitution. Columns of percentages have different denominators. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-7. Public school and student participation rates in NAEP mathematics at grade 8, by state/jurisdiction: 2022

State/jurisdiction	SCHOOL PARTICIPATION			STUDENT PARTICIPATION	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Nation (public)	100	100	5,010	89	107,700
Alabama	100	100	90	91	1,800
Alaska	99	94	90	84	1,500
Arizona	100	100	90	90	1,800
Arkansas	100	100	90	91	1,800
California	100	100	170	88	3,600
Colorado	97	95	110	86	2,300
Connecticut	99	98	80	88	1,700
Delaware	100	100	50	87	1,700
Florida	100	100	200	89	4,500
Georgia	100	100	110	90	2,500
Hawaii	100	100	50	85	1,700
Idaho	100	100	80	90	1,800
Illinois	100	100	140	88	2,700
Indiana	99	99	80	91	1,700
Iowa	100	100	80	90	1,800
Kansas	100	100	90	91	1,800
Kentucky	100	100	100	89	2,300
Louisiana	100	100	90	90	1,700
Maine	98	96	90	87	1,700
Maryland	100	100	120	89	2,500
Massachusetts	100	100	120	88	2,500
Michigan	100	100	130	87	2,400
Minnesota	99	99	80	86	1,500
Mississippi	100	100	80	90	1,800
Missouri	100	100	90	92	1,800
Montana	100	98	100	86	1,700
Nebraska	100	100	100	92	1,900
Nevada	100	100	90	88	1,900
New Hampshire	99	99	80	82	1,700
New Jersey	99	99	80	91	1,800
New Mexico	100	100	100	88	2,200
New York	98	98	120	81	2,300
North Carolina	100	100	130	90	3,300
North Dakota	100	100	80	89	1,700
Ohio	100	100	130	90	2,400
Oklahoma	100	100	90	92	1,700
Oregon	100	100	90	85	1,600
Pennsylvania	99	100	120	89	2,400
Rhode Island	100	100	60	90	1,800
South Carolina	100	100	90	91	1,700
South Dakota	99	99	90	91	1,900
Tennessee	98	96	110	91	2,500
Texas	100	100	200	90	5,500
Utah	100	100	90	88	1,700
Vermont	100	100	80	87	1,800
Virginia	99	100	80	88	1,700
Washington	100	100	90	87	1,800
West Virginia	100	100	90	91	1,800
Wisconsin	100	100	130	88	2,500
Wyoming	100	100	60	87	1,700
Other jurisdictions					
District of Columbia	100	100	70	83	1,600
DoDEA ¹	94	86	40	90	1,700
Puerto Rico	100	100	150	91	3,100

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. The school participation rates are student-weighted percentages before substitution. Columns of percentages have different denominators. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-8. Public school and student participation rates for Trial Urban District Assessment (TUDA) in mathematics, by grade and urban district: 2022

Grade and urban district	SCHOOL PARTICIPATION			STUDENT PARTICIPATION	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Grade 4					
Albuquerque	100	100	40	91	900
Atlanta	100	100	40	94	900
Austin	100	100	40	88	1,000
Baltimore City	100	100	40	90	900
Boston	100	100	50	91	900
Charlotte	100	100	40	92	1,000
Chicago	100	100	70	90	1,300
Clark County (NV)	100	100	60	92	1,400
Cleveland	100	100	50	89	700
Dallas	100	100	40	92	900
Denver	100	100	40	89	900
Detroit	100	100	40	90	900
District of Columbia (DCPS)	100	100	50	90	1,100
Duval County (FL)	100	100	40	92	900
Fort Worth	100	100	40	93	1,000
Guilford County (NC)	100	100	40	93	900
Hillsborough County (FL)	100	100	40	92	900
Houston	100	100	60	93	1,400
Jefferson County (KY)	100	100	40	94	900
Los Angeles	100	100	60	92	1,400
Miami-Dade	100	100	60	95	1,400
Milwaukee	100	100	50	86	800
New York City	99	99	60	87	1,300
Philadelphia	98	99	40	94	900
San Diego	100	100	40	89	800
Shelby County (TN)	100	100	40	94	900
Grade 8					
Albuquerque	100	100	30	86	900
Atlanta	100	100	30	90	800
Austin	100	100	20	85	900
Baltimore City	100	100	40	90	800
Boston	100	100	40	89	800
Charlotte	100	100	30	90	900
Chicago	100	100	70	88	1,300
Clark County (NV)	100	100	50	86	1,300
Cleveland	100	100	50	87	700
Dallas	100	100	40	91	900
Denver	92	98	40	88	900
Detroit	100	100	40	89	800
District of Columbia (DCPS)	100	100	20	82	800
Duval County (FL)	100	100	40	91	900
Fort Worth	100	100	20	92	900
Guilford County (NC)	100	100	20	89	900
Hillsborough County (FL)	100	100	40	91	900
Houston	100	100	40	89	1,300
Jefferson County (KY)	100	100	20	91	900
Los Angeles	100	100	60	89	1,300
Miami-Dade	100	100	60	91	1,300
Milwaukee	100	100	40	80	800
New York City	97	95	60	84	1,300
Philadelphia	91	98	40	87	700
San Diego	100	100	30	86	800
Shelby County (TN)	100	100	40	90	900

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. The school participation rates are student-weighted percentages before substitution.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Inclusion of Students with Disabilities and/or English Learners

It is important for NAEP to assess as many students selected to participate as possible. Assessing representative samples of students, including students with disabilities (SD) and English learners (EL), helps to ensure that NAEP results accurately reflect the educational performance of all students in the target population, and can continue to serve as a meaningful measure of U.S. students' academic achievement over time.

The National Assessment Governing Board, which sets policy for NAEP, explored ways to ensure that NAEP continues to appropriately include as many students as possible and to do so in a consistent manner for all jurisdictions assessed and reported. In March 2010, the Governing Board adopted a new policy, NAEP Testing and Reporting on Students with Disabilities and English Learners. This policy was the culmination of work with experts in testing and curriculum, and those who work with exceptional children and students learning to speak English. The policy aims to

- maximize participation of sampled students in NAEP,
- reduce variation in exclusion rates for SD and EL students across states and districts,
- develop uniform national rules for including students in NAEP, and
- ensure that NAEP is fully representative of SD and EL students.

The policy defines specific inclusion goals for NAEP samples. At the national, state, and district levels, the goal is to include 95 percent of all students selected for the NAEP samples, and 85 percent of those in the NAEP sample who are identified as SD or EL.

Students are selected to participate in NAEP based on a sampling procedure designed to yield a sample of students that is representative of students in all schools nationwide and in public schools within each state. First, schools are selected, and then students are sampled from within those schools without regard to disability or English language proficiency. Once students are selected, those previously identified as SD or EL may be offered accommodations or excluded.

States and jurisdictions vary in their proportions of special-needs students and in their policies on inclusion and the use of accommodations. While identification of rates SD and EL students in some states, have leveled off in recent years, NAEP inclusion rates have generally remained steady or increased since 2003. This reflects efforts on the part of states and jurisdictions to include all students who can meaningfully participate in the NAEP assessments. The NAEP inclusion policy is an effort to ensure that this trend continues.

Determining whether each jurisdiction has met the NAEP inclusion goals involves looking at three different inclusion rates—an overall inclusion rate, an inclusion rate for SD students (not including those with a Section 504 plan), and an inclusion rate for EL students. Each inclusion rate is calculated as the percentage of sampled students who were included in the assessment (i.e., were not excluded).

Inclusion rate percentages are estimates because they are based on representative samples of students rather than on the entire population of students. As such, the inclusion rates are associated with a margin of error. The margin of error for each jurisdiction's inclusion rate was taken into account when comparing it to the corresponding inclusion goal. For example, if the point estimate of a state's overall inclusion rate was 93 percent

and had a margin of error of plus or minus 3 percentage points, the state was considered to have met the 95 percent inclusion goal because the 95 percent goal falls within the margin of error, which ranges from 90 percent to 96 percent.

Confidence intervals for state inclusion rates

NAEP endeavors to include as many sampled students as possible in the assessment, including students with disabilities (SD) and English learners (EL), and has established specific inclusion goals: 95 percent of all sampled students and 85 percent of sampled students identified as SD or EL. Inclusion rates were computed for each state/jurisdiction participating in the 2022 assessment and compared to NAEP inclusion goals. Three inclusion percentages were computed for each state/jurisdiction. An overall inclusion percentage represents included students as a percentage of all students sampled within the state/jurisdiction. In addition, separate percentages were computed to report included students as a percentage of the state/jurisdiction sample that was identified as SD (not including students having a Section 504 plan) or EL.

Inclusion percentages are estimates based on a sample, and each estimate has a measure of uncertainty or margin of error. Confidence intervals quantify this uncertainty due to sampling, resulting in interval estimates of the inclusion percentages. Therefore, confidence intervals for inclusion percentages were used to determine upper and lower confidence bounds around the inclusion point estimates.

When determining whether each state/jurisdiction met the NAEP inclusion goals, the confidence intervals were used, rather than just the point estimates. This means that if the inclusion goal of either 95 percent or 85 percent fell within the corresponding confidence interval, the state/jurisdiction was considered as having met the goal. States/jurisdictions for which the upper bound of the confidence interval was less than 95 percent (or 85 percent) did not meet the inclusion goal.

See the National Assessment Governing Board's policy on NAEP Testing and Reporting on Students with Disabilities and English Language Learners at https://www.nagb.org/content/nagb/assets/documents/policies/naep_testandreport_studentswithdisabilities.pdf.

All of the states/jurisdictions participating in the 2022 mathematics assessment met the 95 percent inclusion goal at both grades 4 and 8. See appendix table A-10 for the inclusion rates as a percentage of all students selected in each state/jurisdiction, and table A-11 for the rates as a percentage of the SD or ELL students.

All of the districts participating in the 2022 mathematics assessment met the 95 percent inclusion goal at both grades 4 and 8. See appendix table A-12 for the inclusion rates as a percentage of all students selected in each urban district/jurisdiction, and table A-13 for the rates as a percentage of the SD or ELL students.

Table A-9. Percentage of fourth- and eighth-grade students identified as students with disabilities (SD) and/or English learners (EL) assessed in NAEP mathematics with accommodations, by SD/EL category and type of accommodation: 2022

Type of accommodation	GRADE 4			GRADE 8		
	SD and/or EL	SD	EL	SD and/or EL	SD	EL
Bilingual booklet	0.6	0.1	0.6	0.4	#	0.4
Bilingual dictionary	0.8	0.1	0.8	0.8	0.1	0.8
Braille	#	#	#	#	#	#
Breaks during test	4.3	4.0	0.8	2.8	2.7	0.3
Calculator version of the test	1.0	1.0	0.1	3.3	3.3	0.4
Cueing to stay on task	2.4	2.3	0.5	1.5	1.5	0.1
Directions only presented in Sign Language	#	#	#	#	#	#
Directions translated into Spanish	0.3	#	0.3	0.3	#	0.3
Extended time	11.1	8.1	4.1	11.1	9.1	2.9
Hearing impaired version of test	#	#	#	#	#	#
High contrast for visually impaired	#	#	#	#	#	#
Low mobility version of test	#	#	#	#	#	#
Magnification equipment	0.2	0.2	#	0.1	0.1	#
Must be tested in separate session	5.9	5.3	1.2	5.1	4.8	0.7
Other	0.2	0.2	#	0.1	0.1	#
Preferential seating	2.5	2.4	0.4	2.2	2.1	0.3
Presentation in Sign Language	#	#	#	#	#	#
Responds orally to scribe	0.3	0.3	#	0.1	0.1	#
Response in Sign Language	#	#	#	#	#	#
School staff administers/Aide present	1.0	0.9	0.2	0.4	0.4	0.1
Special equipment	0.3	0.3	#	0.2	0.2	#
Text to speech in Spanish	0.6	0.1	0.6	0.4	#	0.4
Uses template	0.2	0.2	0.1	0.1	0.1	#

Rounds to zero.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-10. Inclusion rate and confidence interval in NAEP mathematics for fourth- and eighth-grade public school students, as a percentage of all students, by state/jurisdiction: 2022

State/jurisdiction	GRADE 4			GRADE 8		
	Inclusion rate	95% CONFIDENCE INTERVAL		Inclusion rate	95% CONFIDENCE INTERVAL	
		Lower	Upper		Lower	Upper
Nation (public)	98 ¹	97.9	98.2	98 ¹	98.1	98.5
Alabama	99 ¹	98.1	99.2	98 ¹	97.6	98.9
Alaska	99 ¹	98.4	99.4	99 ¹	98.4	99.3
Arizona	99 ¹	97.8	99.2	98 ¹	97.0	99.1
Arkansas	99 ¹	98.4	99.4	99 ¹	98.5	99.4
California	98 ¹	97.0	98.3	98 ¹	96.1	98.8
Colorado	98 ¹	97.5	98.8	99 ¹	98.0	99.1
Connecticut	98 ¹	95.5	98.7	98 ¹	97.5	98.9
Delaware	98 ¹	97.5	98.8	98 ¹	97.5	98.6
Florida	97 ¹	96.1	98.2	97 ¹	96.6	98.1
Georgia	99 ¹	98.0	99.0	98 ¹	97.5	98.8
Hawaii	98 ¹	97.5	99.0	98 ¹	97.4	98.5
Idaho	99 ¹	98.4	99.5	99 ¹	98.1	99.2
Illinois	99 ¹	98.0	99.1	99 ¹	98.2	99.3
Indiana	100 ¹	98.9	99.8	99 ¹	98.6	99.6
Iowa	99 ¹	97.9	99.1	99 ¹	97.7	99.0
Kansas	99 ¹	97.5	99.2	99 ¹	97.9	99.2
Kentucky	98 ¹	97.2	98.7	98 ¹	96.4	98.5
Louisiana	98 ¹	97.6	98.9	98 ¹	96.5	98.5
Maine	98 ¹	97.5	99.1	99 ¹	98.4	99.4
Maryland	99 ¹	97.8	99.1	98 ¹	97.4	98.7
Massachusetts	98 ¹	97.3	98.6	97 ¹	96.0	98.3
Michigan	97 ¹	95.0	98.3	98 ¹	97.5	98.7
Minnesota	98 ¹	96.5	98.2	98 ¹	96.8	98.7
Mississippi	99 ¹	98.3	99.7	99 ¹	98.7	99.5
Missouri	99 ¹	98.2	99.5	99 ¹	98.1	99.5
Montana	99 ¹	98.5	99.3	99 ¹	98.2	99.2
Nebraska	99 ¹	98.3	99.1	98 ¹	97.6	98.7
Nevada	98 ¹	97.3	98.9	99 ¹	98.4	99.3
New Hampshire	99 ¹	98.0	99.2	99 ¹	97.9	98.9
New Jersey	98 ¹	97.0	98.6	98 ¹	97.4	99.0
New Mexico	98 ¹	97.7	98.9	98 ¹	97.7	98.8
New York	99 ¹	98.1	99.2	98 ¹	97.4	99.0
North Carolina	98 ¹	94.8	99.3	99 ¹	98.3	99.2
North Dakota	99 ¹	98.0	99.2	99 ¹	98.1	99.0
Ohio	99 ¹	98.2	99.2	99 ¹	98.2	99.3
Oklahoma	98 ¹	96.9	98.4	98 ¹	97.5	99.0
Oregon	98 ¹	97.8	98.9	98 ¹	97.4	99.1
Pennsylvania	98 ¹	97.2	98.5	99 ¹	98.0	99.1
Rhode Island	98 ¹	97.7	98.9	98 ¹	97.0	98.3
South Carolina	99 ¹	98.2	99.3	99 ¹	97.8	99.0
South Dakota	99 ¹	98.3	99.3	98 ¹	97.7	98.9
Tennessee	98 ¹	96.7	98.3	98 ¹	96.6	98.4
Texas	97 ¹	96.0	97.6	98 ¹	97.7	99.0
Utah	99 ¹	98.0	99.4	98 ¹	97.6	98.9
Vermont	99 ¹	98.0	99.0	98 ¹	97.6	98.8
Virginia	97 ¹	96.1	98.0	98 ¹	97.6	98.8
Washington	98 ¹	96.8	98.6	99 ¹	98.0	99.1
West Virginia	98 ¹	97.3	99.1	98 ¹	97.9	98.9
Wisconsin	99 ¹	97.9	99.2	99 ¹	98.2	99.1
Wyoming	99 ¹	98.0	99.2	99 ¹	98.0	99.0
Other jurisdictions						
District of Columbia	98 ¹	96.7	98.4	97 ¹	96.3	98.0
DoDEA ²	98 ¹	97.8	98.7	99 ¹	98.4	99.2
Puerto Rico	100 ¹	99.6	99.9	100 ¹	99.7	100.0

¹ The state/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 95 percent.

² Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-11. Inclusion rate and standard error (SE) in NAEP mathematics for fourth- and eighth-grade public school students with disabilities (SD) and English learners (EL), as a percentage of identified SD or EL students, by state/jurisdiction: 2022

State/jurisdiction	PERCENTAGE OF IDENTIFIED SD OR EL STUDENTS								
	GRADE 4				GRADE 8				
	SD		EL		SD		EL		
	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	
Nation (public)	90 ¹	0.4	95 ¹	0.4	91 ¹	0.3	94 ¹	0.7	
Alabama	91 ¹	1.9	97 ¹	1.5	89 ¹	2.1	93 ¹	2.7	
Alaska	95 ¹	1.3	97 ¹	0.9	93 ¹	1.7	97 ¹	1.2	
Arizona	93 ¹	2.0	94 ¹	2.2	87 ¹	3.4	96 ¹	1.7	
Arkansas	95 ¹	1.3	95 ¹	1.7	94 ¹	1.6	97 ¹	2.0	
California	86 ¹	2.5	96 ¹	0.8	89 ¹	1.6	94 ¹	2.6	
Colorado	91 ¹	1.9	96 ¹	0.9	90 ¹	1.9	97 ¹	1.2	
Connecticut	90 ¹	2.6	93 ¹	2.5	92 ¹	1.8	89 ¹	2.8	
Delaware	93 ¹	1.4	96 ¹	1.1	92 ¹	1.5	95 ¹	1.2	
Florida	88 ¹	2.5	92 ¹	2.2	88 ¹	1.7	91 ¹	2.0	
Georgia	91 ¹	1.6	97 ¹	1.3	89 ¹	1.9	94 ¹	2.3	
Hawaii	89 ¹	2.5	95 ¹	1.6	87 ¹	1.8	93 ¹	1.8	
Idaho	94 ¹	1.6	98 ¹	1.1	89 ¹	2.3	98 ¹	1.5	
Illinois	92 ¹	2.0	98 ¹	0.7	94 ¹	1.7	96 ¹	1.1	
Indiana	97 ¹	1.0	98 ¹	1.5	97 ¹	1.1	95 ¹	2.8	
Iowa	92 ¹	1.7	91 ¹	2.8	91 ¹	2.2	92 ¹	2.9	
Kansas	94 ¹	1.7	97 ¹	1.5	93 ¹	1.8	94 ¹	2.5	
Kentucky	90 ¹	2.1	94 ¹	1.8	85 ¹	3.2	91 ¹	3.8	
Louisiana	87 ¹	2.5	99 ¹	1.2	84 ¹	3.2	‡	†	
Maine	93 ¹	1.7	93 ¹	3.6	96 ¹	1.1	‡	†	
Maryland	93 ¹	1.9	96 ¹	1.3	90 ¹	2.4	90 ¹	2.0	
Massachusetts	93 ¹	1.3	94 ¹	1.2	94 ¹	1.2	75	4.8	
Michigan	81 ¹	4.0	95 ¹	2.5	87 ¹	2.0	95 ¹	2.2	
Minnesota	88 ¹	2.2	94 ¹	1.6	89 ¹	2.1	91 ¹	2.8	
Mississippi	96 ¹	1.7	98 ¹	1.4	94 ¹	1.5	94 ¹	2.9	
Missouri	95 ¹	2.1	97 ¹	2.0	95 ¹	1.8	93 ¹	2.7	
Montana	93 ¹	1.3	‡	†	92 ¹	1.8	‡	†	
Nebraska	93 ¹	1.2	100 ¹	0.4	90 ¹	1.7	92 ¹	3.0	
Nevada	87 ¹	2.7	97 ¹	0.8	91 ¹	1.8	95 ¹	1.6	
New Hampshire	95 ¹	1.4	94 ¹	2.8	92 ¹	1.4	‡	†	
New Jersey	92 ¹	2.1	90 ¹	2.4	95 ¹	1.6	80 ¹	6.2	
New Mexico	91 ¹	1.6	98 ¹	0.8	92 ¹	1.4	97 ¹	0.6	
New York	96 ¹	1.1	95 ¹	1.3	93 ¹	1.8	94 ¹	2.0	
North Carolina	91 ¹	2.2	91 ¹	4.7	93 ¹	1.3	94 ¹	1.8	
North Dakota	92 ¹	1.7	94 ¹	3.3	91 ¹	1.8	‡	†	
Ohio	94 ¹	1.5	93 ¹	3.0	95 ¹	1.1	88 ¹	5.0	
Oklahoma	89 ¹	2.0	97 ¹	1.0	93 ¹	1.7	95 ¹	1.9	
Oregon	92 ¹	1.7	94 ¹	1.4	93 ¹	1.8	90 ¹	3.2	
Pennsylvania	92 ¹	1.3	90 ¹	3.3	94 ¹	1.4	92 ¹	2.4	
Rhode Island	92 ¹	1.6	95 ¹	1.3	90 ¹	1.8	90 ¹	2.2	
South Carolina	95 ¹	1.5	95 ¹	1.8	92 ¹	1.8	91 ¹	3.2	
South Dakota	94 ¹	1.3	96 ¹	1.9	89 ¹	2.2	95 ¹	2.5	
Tennessee	85 ¹	2.3	92 ¹	2.5	84 ¹	2.8	87 ¹	4.2	
Texas	84 ¹	2.0	95 ¹	1.0	90 ¹	2.3	97 ¹	1.0	
Utah	94 ¹	1.7	98 ¹	0.9	89 ¹	2.3	95 ¹	1.6	
Vermont	93 ¹	1.3	‡	†	92 ¹	1.5	‡	†	
Virginia	84 ¹	3.0	93 ¹	1.8	91 ¹	1.6	88 ¹	3.2	
Washington	87 ¹	2.8	94 ¹	1.6	90 ¹	2.3	97 ¹	1.2	
West Virginia	93 ¹	1.8	‡	†	92 ¹	1.3	‡	†	
Wisconsin	92 ¹	2.0	95 ¹	1.6	91 ¹	1.8	96 ¹	1.6	
Wyoming	93 ¹	1.7	98 ¹	1.5	90 ¹	1.8	‡	†	
Other jurisdictions									
District of Columbia	91 ¹	1.9	94 ¹	1.5	91 ¹	1.4	91 ¹	1.9	
DoDEA ²	90 ¹	1.5	97 ¹	0.8	91 ¹	1.7	96 ¹	2.0	
Puerto Rico	100 ¹	0.2	‡	†	100 ¹	0.1	‡	†	

† Not applicable. Standard error estimate cannot be accurately determined.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

¹ The state/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 85 percent.

² Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. SD includes students identified as having an Individualized Education Program but excludes other students protected under Section 504 of the Rehabilitation Act of 1973. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-12. Inclusion rate and confidence interval in NAEP mathematics for fourth- and eighth-grade public school students, as a percentage of all students, by urban district/jurisdiction: 2022

Urban district/jurisdiction	GRADE 4			GRADE 8		
	Inclusion rate	95% CONFIDENCE INTERVAL		Inclusion rate	95% CONFIDENCE INTERVAL	
		Lower	Upper		Lower	Upper
Nation (public)	98 ²	97.9	98.2	98 ²	98.1	98.5
Large city ¹ (public)	97 ²	96.9	97.8	98 ²	96.9	98.6
Albuquerque	99 ²	98.6	99.8	98 ²	96.8	98.8
Atlanta	99 ²	98.3	99.6	99 ²	98.4	99.5
Austin	97 ²	95.5	97.9	98 ²	97.0	98.7
Baltimore City	99 ²	97.4	99.3	97 ²	95.6	98.1
Boston	94 ²	92.4	95.7	94 ²	92.4	95.4
Charlotte	98 ²	96.5	98.6	97 ²	95.3	97.9
Chicago	97 ²	95.6	98.2	99 ²	98.4	99.4
Clark County (NV)	99 ²	98.1	99.3	99 ²	98.0	99.2
Cleveland	97 ²	96.1	98.3	96 ²	94.1	97.5
Dallas	96 ²	93.3	97.3	98 ²	96.5	98.6
Denver	98 ²	96.2	98.8	97 ²	95.3	98.5
Detroit	96 ²	93.8	97.3	95 ²	93.5	96.2
District of Columbia (DCPS)	97 ²	95.1	97.8	96 ²	94.5	97.2
Duval County (FL)	98 ²	95.6	99.0	98 ²	97.5	99.1
Fort Worth	98 ²	96.5	98.5	98 ²	96.4	98.6
Guilford County (NC)	99 ²	97.4	99.2	98 ²	97.1	98.9
Hillsborough County (FL)	97 ²	95.3	97.9	98 ²	96.5	98.5
Houston	97 ²	95.3	97.8	97 ²	96.1	97.7
Jefferson County (KY)	96 ²	94.2	97.8	99 ²	97.4	99.2
Los Angeles	98 ²	96.7	98.8	98 ²	96.3	98.6
Miami-Dade	97 ²	95.5	97.9	96 ²	94.2	97.8
Milwaukee	99 ²	97.4	99.2	98 ²	96.8	98.6
New York City	99 ²	97.9	99.3	99 ²	98.5	99.7
Philadelphia	96 ²	93.9	97.0	96 ²	93.6	96.9
San Diego	97 ²	95.9	97.9	98 ²	97.1	98.9
Shelby County (TN)	96 ²	94.2	97.6	97 ²	95.9	98.2

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

² The urban district/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 95 percent.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-13. Inclusion rate and standard error (SE) in NAEP mathematics for fourth- and eighth-grade public school students with disabilities (SD) and English learners (EL), as a percentage of identified SD and EL students, by urban district/jurisdiction: 2022

Urban district/jurisdiction	PERCENTAGE OF IDENTIFIED SD OR EL STUDENTS							
	GRADE 4				GRADE 8			
	SD		EL		SD		EL	
	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE	Inclusion rate	SE
Nation (public)	90 ²	0.4	95 ²	0.4	91 ²	0.3	94 ²	0.7
Large city ¹ (public)	89 ²	1.1	94 ²	0.8	90 ²	0.8	93 ²	1.7
Albuquerque	98 ²	1.1	99 ²	0.6	94 ²	1.7	96 ²	1.4
Atlanta	93 ²	2.8	‡	†	95 ²	2.1	‡	†
Austin	86 ²	3.0	95 ²	1.2	89 ²	2.8	95 ²	1.3
Baltimore City	95 ²	2.6	97 ²	1.4	88 ²	3.0	‡	†
Boston	83 ²	2.3	89 ²	1.7	80	2.8	83 ²	2.8
Charlotte	88 ²	4.0	93 ²	1.6	82 ²	3.7	88 ²	3.4
Chicago	85 ²	4.0	95 ²	1.1	95 ²	1.5	98 ²	0.8
Clark County (NV)	93 ²	2.0	97 ²	1.0	89 ²	2.3	94 ²	1.9
Cleveland	88 ²	2.3	96 ²	2.1	87 ²	2.1	89 ²	3.6
Dallas	78 ²	6.5	96 ²	0.9	83 ²	4.5	98 ²	0.6
Denver	95 ²	2.2	95 ²	1.3	85 ²	4.7	96 ²	1.2
Detroit	69	5.5	99 ²	0.8	72	4.1	96 ²	1.8
District of Columbia (DCPS)	88 ²	2.9	92 ²	2.1	88 ²	2.6	87 ²	2.7
Duval County (FL)	90 ²	3.5	100 ²	†	91 ²	2.4	‡	†
Fort Worth	85 ²	3.5	99 ²	0.5	77 ²	5.0	98 ²	0.7
Guilford County (NC)	89 ²	3.5	99 ²	0.6	88 ²	3.1	96 ²	2.0
Hillsborough County (FL)	87 ²	3.5	92 ²	2.2	94 ²	1.9	82 ²	4.6
Houston	73	4.3	98 ²	0.7	82 ²	3.5	95 ²	1.0
Jefferson County (KY)	81 ²	5.0	93 ²	2.4	87 ²	4.1	97 ²	1.6
Los Angeles	88 ²	3.3	95 ²	1.3	88 ²	2.8	93 ²	1.9
Miami-Dade	89 ²	3.3	90 ²	1.9	81 ²	5.0	86 ²	2.8
Milwaukee	95 ²	1.5	97 ²	1.6	89 ²	2.2	96 ²	1.9
New York City	99 ²	0.6	94 ²	1.5	98 ²	0.9	96 ²	1.9
Philadelphia	84 ²	2.9	90 ²	3.0	84 ²	3.1	86 ²	2.8
San Diego	91 ²	3.3	92 ²	2.2	93 ²	2.1	91 ²	2.4
Shelby County (TN)	76 ²	5.6	88 ²	4.2	71	5.1	‡	†

† Not applicable. Standard error estimate cannot be accurately determined.

‡ Reporting standards not met. Sample size insufficient to permit a reliable estimate.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

² The urban district/jurisdiction's inclusion rate is higher than or not significantly different from the National Assessment Governing Board goal of 85 percent.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. SD includes students identified as having an Individualized Education Program but excludes other students protected under Section 504 of the Rehabilitation Act of 1973.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-14. Percentage of fourth- and eighth-grade students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics when accommodations were not permitted: 1992 and 1996

Grade and SD/EL category	1992	1996
Grade 4		
SD and/or EL		
Identified	9	14
Excluded	6	6
Assessed	3	8
SD		
Identified	7	11
Excluded	4	5
Assessed	3	6
EL		
Identified	3	3
Excluded	2	1
Assessed	1	2
Grade 8		
SD and/or EL		
Identified	9	11
Excluded	6	4
Assessed	4	6
SD		
Identified	7	9
Excluded	4	4
Assessed	3	5
EL		
Identified	2	3
Excluded	2	1
Assessed	1	2

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1996 Mathematics Assessments.

Accommodations

Prior to 1996, no testing accommodations were provided to students taking the NAEP mathematics assessment, resulting in the exclusion of students who could not be assessed without them. As the number of identified students with disabilities and English learners increased over the years, the exclusion of those needing accommodations to participate in NAEP threatened the stability of trend lines (excluding more students in one assessment year than in another might lead to apparent rather than real differences), and threatened to compromise NAEP samples as optimally representative of target populations. Therefore, administration procedures allowing for many of the same testing accommodations provided on state and district assessments (e.g., extra testing time or individual rather than group administration) were introduced in 1996 for national NAEP mathematics assessments and in 2000 for NAEP state assessments.

The percentages of SD/ELL students assessed with the available accommodations in 2022 are presented in table A-15. Students assessed with accommodations typically received some combination of accommodations. In contrast to assessment years prior to 2009 in which students were only counted once in the category reflecting

the primary accommodation provided, students are counted in the categories for each accommodation they received in 2022. For example, students assessed in small groups (as compared with standard NAEP sessions of about 30 students) were also usually given extended time and are included in counts for both groups in table A-15.

Since providing accommodations represented a change in testing conditions that could potentially affect the measurement of changes over time, split national samples of students were assessed in mathematics in 1996 and 2000, and split state samples were assessed in 2000. In each of these years, one sample permitted accommodations, and the other did not. This eased the transition to single samples in which accommodations were permitted beginning in 2003 while maintaining trends back to 1990.

Table A-15. Percentage of fourth- and eighth-grade students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics when accommodations were permitted: Various years, 1996–2022

Grade and SD/EL category	1996	2000	2003	2005	2007	2009	2011	2013	2015	2017	2019	2022
Grade 4												
SD and/or EL												
Identified	15	18	21	21	21	21	22	22	23	24	25	27
Excluded	4	4	4	3	3	2	2	1	2	2	2	2
Assessed	11	14	17	18	19	19	20	20	22	22	24	25
Without accommodations	7	9	9	9	9	8	8	7	8	10	9	11
With accommodations	5	5	8	9	10	10	12	13	14	12	14	14
SD												
Identified	10	12	13	13	13	13	13	13	14	14	15	16
Excluded	3	3	3	2	2	2	2	1	1	1	1	1
Assessed	7	9	10	10	10	11	11	12	13	12	14	14
Without accommodations	4	5	4	3	3	3	2	2	2	3	3	4
With accommodations	4	4	6	7	7	8	8	10	10	9	10	11
EL												
Identified	6	7	10	10	10	10	11	10	11	11	12	14
Excluded	1	1	1	1	1	1	#	#	1	1	1	1
Assessed	5	6	8	8	9	9	10	10	10	11	12	13
Without accommodations	3	4	6	6	6	6	6	5	6	6	7	8
With accommodations	2	1	2	2	3	3	4	5	5	4	5	5
Grade 8												
SD and/or EL												
Identified	12	13	17	17	17	17	17	16	18	19	20	22
Excluded	3	4	3	3	4	3	2	1	2	2	1	2
Assessed	8	10	14	14	13	14	14	15	16	17	18	21
Without accommodations	6	7	7	6	6	5	4	3	4	5	6	7
With accommodations	3	3	6	8	7	9	10	12	12	12	13	14
SD												
Identified	9	10	13	12	12	12	12	12	13	13	14	15
Excluded	3	3	3	3	3	3	2	1	1	1	1	1
Assessed	6	7	10	10	8	9	10	11	12	12	13	14
Without accommodations	4	5	4	3	2	2	2	1	1	2	2	2
With accommodations	2	2	6	7	6	8	8	10	10	10	11	11
EL												
Identified	3	4	6	6	6	5	6	5	6	7	7	9
Excluded	1	1	1	1	1	#	#	#	#	1	#	1
Assessed	2	3	5	5	5	5	5	5	6	6	7	9
Without accommodations	2	2	4	4	4	3	3	2	3	3	4	5
With accommodations	#	1	1	1	2	2	2	3	3	3	3	3

Rounds to zero.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1996–2022 Mathematics Assessments.

Exclusion Rates

Even with the availability of accommodations, some students are excluded from the NAEP assessments by their schools. The decision to exclude any student is made by school staff, who, using NAEP guidelines and each student's Individualized Education Program (IEP), decide whether the student can meaningfully be assessed.

In 2013, the method used by school staff to determine whether or not a student should be excluded from the NAEP assessment was revised. Previously, a student who required an accommodation specified in their IEP that was not allowed by NAEP was excluded. Beginning in 2013, SD students could be excluded only if they took an alternate assessment with alternate achievement standards, and EL students could be excluded only if they had been enrolled in U.S. schools for less than one year. All other students were encouraged to take the assessment, even if their accommodation was not allowed by NAEP. Schools, students, or parents could, however, refuse to allow such a student to be assessed. For weighting and reporting purposes, these refusals were counted as exclusions.

Jurisdictions vary in their proportions of SD and/or EL students. These variations, as well as differences in policies and practices regarding the identification and inclusion of SD and/or EL students, lead to differences in exclusion and accommodation rates. These differences should be considered when comparing student performance over time and across jurisdictions. While the effect of exclusion is not precisely known, the validity of comparisons of performance results could be affected if exclusion rates are comparatively high or vary widely over time.

National Exclusion Rates (public and nonpublic school students): The percentage of SD and/or EL students excluded and assessed with and without accommodations as a percentage of students identified are provided in table A-16. (Note that the denominator for these percentages includes assessed students plus excluded students; it does not include sampled students who were absent or refused to participate).

State Exclusion Rates (public school students only): The states/jurisdictions that participated in the 1992, 1996, and 2000 mathematics assessments at grade 4 when accommodations were not permitted are provided in table A-17. The states/jurisdictions that participated in the 2000 to 2022 mathematics assessments at grade 4 when accommodations were permitted are provided in table A-18.

The states/jurisdictions that participated in the 1990, 1992, 1996, and 2000 mathematics assessments at grade 8 when accommodations were not permitted are provided in table A-19. The states/jurisdictions that participated in the 2000 to 2022 mathematics assessments at grade 8 when accommodations were permitted are provided in table A-20.

Rates by state are reported separately for SD and EL students at each grade in tables A-21 through A-28. Rates are also reported as the percentage of SD and/or EL students identified in each state in tables A-29 through A-30.

District Exclusion Rates (public school students only): District-level results in mathematics are only available based on administrations in which accommodations were permitted. Among the 26 urban districts that participated in the 2022 mathematics assessment, the percentage of fourth-graders identified as SD and/or EL are provided in tables A-31, A-33, and A-35. The percentage of eighth-graders identified as SD and/or EL are provided in tables A-32, A-34, and A-36.

Table A-16. Percentage of fourth- and eighth-grade students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, as a percentage of identified SD and/or EL students, by grade and SD/EL category: 2022

Grade and SD/EL category	PERCENTAGE OF IDENTIFIED SD AND/OR EL STUDENTS			
	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Grade 4				
SD and/or EL	7	93	41	52
SD	9	91	23	68
EL	5	95	59	37
Grade 8				
SD and/or EL	7	93	32	61
SD	8	92	15	77
EL	6	94	56	38

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-17. Percentage of fourth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: 1992, 1996, and 2000

State/jurisdiction	1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation (public)	10	7	4	16	6	9	16	7	9
Alabama	10	5	6	12	6	5	13	6	7
Alaska	—	—	—	20	4	16	—	—	—
Arizona	15	5	10	21	12	9	25	12	13
Arkansas	12	5	6	10	7	3	14	7	7
California	28	12	16	33	16	17	33	9	24
Colorado	10	5	5	15	8	7	—	—	—
Connecticut	14	7	7	16	8	8	15	10	5
Delaware	12	5	6	14	7	7	—	—	—
Florida	17	8	8	19	10	9	—	—	—
Georgia	10	5	4	13	7	6	11	7	4
Hawaii	13	6	8	14	6	9	19	10	9
Idaho	9	3	6	—	—	—	16	6	10
Illinois	—	—	—	—	—	—	17	10	6
Indiana	7	3	4	11	5	6	11	7	5
Iowa	9	3	6	13	6	7	15	10	5
Kansas	—	—	—	—	—	—	16	7	9
Kentucky	8	3	5	10	6	4	12	8	3
Louisiana	8	4	4	14	8	7	16	8	8
Maine	14	6	8	15	8	7	16	10	6
Maryland	11	4	7	14	8	7	12	9	4
Massachusetts	18	7	11	18	9	9	19	10	9
Michigan	7	5	2	11	6	5	11	8	3
Minnesota	9	3	6	14	6	8	16	6	10
Mississippi	7	5	2	8	6	2	6	4	2
Missouri	12	4	7	14	5	9	15	10	6
Montana	—	—	—	10	5	5	12	5	7
Nebraska	13	4	8	15	5	10	18	8	10
Nevada	—	—	—	16	9	8	20	10	9
New Hampshire	12	4	8	—	—	—	—	—	—
New Jersey	11	6	6	11	6	5	—	—	—
New Mexico	15	7	8	22	12	10	31	12	19
New York	12	5	6	15	8	7	16	12	4
North Carolina	12	4	8	14	7	7	16	13	3
North Dakota	9	2	7	11	4	7	12	6	6
Ohio	10	6	4	—	—	—	12	10	2
Oklahoma	13	7	6	—	—	—	20	10	10
Oregon	—	—	—	19	9	10	18	8	11
Pennsylvania	9	4	5	9	5	4	—	—	—
Rhode Island	15	6	10	18	6	12	23	12	11
South Carolina	10	5	5	12	6	7	17	7	10
Tennessee	12	4	8	13	6	6	11	4	7
Texas	17	8	9	24	10	14	25	15	10
Utah	10	4	6	13	6	7	14	7	7
Vermont	—	—	—	14	6	8	15	11	5
Virginia	11	5	6	14	7	7	16	11	5
Washington	—	—	—	13	5	8	—	—	—
West Virginia	9	4	4	13	8	5	13	10	3
Wisconsin	11	5	5	12	8	4	19	12	8
Wyoming	10	4	7	13	4	9	15	6	9
Other jurisdictions									
District of Columbia	11	9	2	14	11	3	19	9	10
DoDEA ¹	—	—	—	9	4	5	11	5	6

— Not available.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1992 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table A-18. Percentage of fourth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	19	4	15	10	5	22	4	18	10	8
Alabama	13	3	10	7	3	12	2	10	8	2
Alaska	—	—	—	—	—	31	1	30	20	10
Arizona	25	4	21	12	9	27	5	23	18	5
Arkansas	14	4	10	6	4	17	2	14	7	8
California	33	6	27	19	8	38	3	35	31	4
Colorado	—	—	—	—	—	20	2	17	7	11
Connecticut	14	5	10	5	4	16	4	12	5	8
Delaware	—	—	—	—	—	18	7	11	4	7
Florida	—	—	—	—	—	26	3	23	8	15
Georgia	11	3	8	4	4	16	2	14	6	7
Hawaii	19	9	11	8	3	17	3	14	5	8
Idaho	16	2	13	7	7	18	2	16	9	7
Illinois	17	3	14	5	9	23	4	18	7	11
Indiana	11	2	9	3	6	17	2	14	8	7
Iowa	15	2	12	5	7	18	3	15	4	11
Kansas	16	3	13	9	4	16	2	14	3	11
Kentucky	12	3	9	4	5	14	3	11	5	7
Louisiana	16	3	13	2	11	22	3	19	3	16
Maine	16	5	12	5	7	18	3	15	4	11
Maryland	12	2	10	4	6	16	4	12	6	6
Massachusetts	19	3	17	7	10	22	3	19	4	15
Michigan	11	3	8	3	4	15	4	11	5	6
Minnesota	16	2	14	7	7	18	3	16	8	7
Mississippi	6	3	3	1	2	10	5	5	4	1
Missouri	15	3	13	5	8	17	4	13	4	10
Montana	12	2	11	5	6	16	2	14	7	7
Nebraska	18	3	15	10	4	20	3	17	9	9
Nevada	20	7	13	8	5	26	4	22	14	8
New Hampshire	—	—	—	—	—	20	3	17	5	12
New Jersey	—	—	—	—	—	18	2	16	1	14
New Mexico	31	6	26	16	10	40	4	36	22	15
New York	16	5	11	2	9	19	5	14	2	11
North Carolina	16	5	11	3	8	21	4	17	5	12
North Dakota	12	1	11	7	4	18	2	16	8	7
Ohio	12	5	7	2	5	13	4	9	2	7
Oklahoma	20	5	15	11	5	22	4	18	10	8
Oregon	18	3	16	8	8	27	4	23	11	11
Pennsylvania	—	—	—	—	—	15	3	12	3	9
Rhode Island	23	3	20	10	10	27	3	24	9	15
South Carolina	17	5	12	7	5	18	6	12	7	4
South Dakota	—	—	—	—	—	18	1	16	9	7
Tennessee	11	3	9	7	1	14	3	11	7	5
Texas	25	7	18	12	6	27	7	20	14	6
Utah	14	3	11	7	4	21	3	19	11	7
Vermont	15	3	13	4	9	18	4	14	4	10
Virginia	16	4	12	5	7	19	6	13	5	8
Washington	—	—	—	—	—	19	3	16	8	8
West Virginia	13	3	11	3	8	15	3	12	3	9
Wisconsin	19	5	14	7	8	20	4	16	4	12
Wyoming	15	2	13	8	6	18	1	17	6	11
Other jurisdictions										
District of Columbia	19	5	14	7	7	18	4	14	4	10
DoDEA ¹	11	3	8	4	4	14	1	13	6	7
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-18. Percentage of fourth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	23	3	20	10	10	23	3	20	10	10
Alabama	13	1	12	9	3	13	2	12	8	4
Alaska	32	2	30	15	15	30	2	28	13	15
Arizona	29	4	25	17	8	25	3	22	14	7
Arkansas	16	3	13	5	8	18	3	15	4	11
California	39	4	35	31	5	40	2	38	33	5
Colorado	22	3	19	5	14	25	2	24	9	15
Connecticut	16	2	14	4	10	18	1	17	4	13
Delaware	20	8	12	5	7	20	5	15	5	10
Florida	25	3	21	5	17	22	3	18	2	16
Georgia	16	2	14	6	8	15	2	13	4	9
Hawaii	18	3	16	6	9	19	1	18	7	11
Idaho	18	1	17	9	8	18	2	16	8	8
Illinois	22	3	20	9	10	23	5	18	8	10
Indiana	18	2	16	5	11	22	3	19	7	12
Iowa	18	2	16	4	12	17	1	16	4	12
Kansas	19	3	16	6	10	20	3	17	7	10
Kentucky	15	3	13	3	9	17	3	14	6	8
Louisiana	24	4	20	3	18	19	2	16	3	13
Maine	20	4	16	5	12	19	3	16	4	12
Maryland	17	4	13	5	9	16	4	12	4	9
Massachusetts	24	4	19	6	13	23	5	18	6	12
Michigan	17	4	13	4	9	15	3	12	5	7
Minnesota	19	2	17	9	9	21	2	18	8	10
Mississippi	11	2	9	5	4	11	1	10	5	6
Missouri	18	2	16	6	10	16	4	13	5	8
Montana	14	2	12	4	8	16	2	14	5	9
Nebraska	23	2	21	9	12	23	3	20	10	10
Nevada	26	3	23	13	10	32	3	29	16	13
New Hampshire	22	2	20	5	14	21	2	18	4	14
New Jersey	18	3	15	4	11	18	2	16	2	14
New Mexico	36	3	33	15	18	32	4	29	14	15
New York	20	4	17	2	14	22	2	20	2	17
North Carolina	21	2	18	4	14	21	2	19	5	14
North Dakota	17	3	14	6	8	17	4	13	5	9
Ohio	13	3	9	2	8	17	5	12	3	9
Oklahoma	21	4	17	7	10	19	5	14	7	7
Oregon	27	4	23	11	11	26	3	23	9	14
Pennsylvania	18	3	15	4	11	18	2	16	5	11
Rhode Island	26	3	23	8	15	25	2	23	7	16
South Carolina	16	4	12	7	5	17	2	15	7	8
South Dakota	19	2	17	9	8	19	1	17	9	8
Tennessee	13	3	10	4	6	16	6	10	5	5
Texas	27	6	21	13	8	26	5	21	12	9
Utah	23	2	20	11	9	22	2	20	11	9
Vermont	18	3	15	5	10	19	2	16	4	12
Virginia	22	5	17	5	12	22	5	17	7	10
Washington	21	3	18	8	10	22	3	19	8	11
West Virginia	20	2	17	9	8	18	1	17	8	8
Wisconsin	19	2	17	5	12	21	3	18	5	13
Wyoming	19	2	17	6	11	18	2	16	6	10
Other jurisdictions										
District of Columbia	20	6	14	4	10	20	6	14	2	13
DoDEA ¹	17	2	15	6	8	17	2	15	6	9
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-18. Percentage of fourth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	23	2	20	9	11	23	2	21	9	12
Alabama	12	1	11	8	4	12	1	11	6	4
Alaska	25	1	24	6	17	27	3	25	7	18
Arizona	26	1	24	11	14	22	1	21	5	15
Arkansas	17	1	16	4	12	20	1	19	5	14
California	36	2	34	28	5	38	2	36	29	7
Colorado	21	2	19	6	13	25	1	24	9	14
Connecticut	18	2	16	2	14	19	1	17	2	16
Delaware	18	3	15	2	13	19	4	15	3	12
Florida	23	2	21	4	18	23	2	22	3	19
Georgia	14	1	13	4	9	16	2	15	4	10
Hawaii	20	1	18	5	13	20	2	18	7	11
Idaho	15	1	14	5	8	15	1	13	5	9
Illinois	22	3	19	6	13	21	2	18	6	13
Indiana	19	2	17	6	11	22	2	20	6	14
Iowa	18	2	16	3	13	19	1	18	3	15
Kansas	22	3	19	7	12	24	2	23	10	13
Kentucky	17	3	14	5	8	16	3	13	5	9
Louisiana	22	2	20	4	16	22	2	20	3	18
Maine	20	2	18	3	15	20	2	19	4	15
Maryland	19	5	14	3	12	19	6	13	2	11
Massachusetts	24	5	19	7	13	25	3	21	6	15
Michigan	17	3	14	6	8	16	2	14	6	9
Minnesota	21	2	19	8	11	23	1	22	9	13
Mississippi	10	1	9	3	6	11	1	10	5	6
Missouri	16	3	14	5	9	16	2	15	5	10
Montana	14	2	13	4	9	14	2	12	4	8
Nebraska	24	3	21	10	11	23	2	22	8	14
Nevada	30	3	27	11	17	35	2	33	11	22
New Hampshire	21	2	18	3	15	19	2	17	2	15
New Jersey	19	3	16	2	14	20	3	16	2	14
New Mexico	26	2	24	8	15	27	3	24	9	15
New York	22	1	21	1	20	23	1	22	1	21
North Carolina	19	2	17	4	13	21	2	19	7	12
North Dakota	17	4	14	4	9	17	4	13	4	9
Ohio	16	3	13	2	11	17	2	15	2	13
Oklahoma	19	4	15	6	8	21	8	12	6	7
Oregon	26	3	23	8	15	28	3	25	10	15
Pennsylvania	18	3	15	4	11	18	1	16	4	13
Rhode Island	22	2	20	5	15	19	1	18	5	13
South Carolina	19	2	17	7	10	18	1	17	7	10
South Dakota	16	2	14	6	8	19	2	18	9	9
Tennessee	16	3	12	3	9	17	3	13	3	10
Texas	29	3	26	18	8	30	4	26	18	8
Utah	19	2	17	6	11	19	2	17	6	10
Vermont	21	2	18	4	14	19	2	18	3	15
Virginia	20	2	18	5	13	19	2	17	5	12
Washington	21	2	19	8	12	22	2	20	7	14
West Virginia	17	2	16	7	9	18	2	16	8	9
Wisconsin	20	2	18	4	15	21	2	19	4	16
Wyoming	18	1	17	5	12	19	2	17	5	12
Other jurisdictions										
District of Columbia	20	4	16	3	13	21	5	16	2	14
DoDEA ¹	18	2	16	6	10	19	3	16	5	10
Puerto Rico	—	—	—	—	—	25	#	24	1	23

See notes at end of table.

Table A-18. Percentage of fourth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	23	2	21	7	14	24	2	23	8	14
Alabama	12	1	11	6	5	14	1	13	7	6
Alaska	27	1	26	4	22	27	1	26	7	18
Arizona	17	1	15	2	13	21	1	20	4	16
Arkansas	21	1	20	5	15	21	1	20	4	16
California	32	2	30	22	9	35	2	33	26	7
Colorado	23	1	21	9	12	24	2	22	11	11
Connecticut	19	1	17	2	16	19	1	18	4	14
Delaware	18	2	16	2	14	20	2	19	5	14
Florida	25	2	23	2	20	26	2	24	2	21
Georgia	16	1	15	3	11	19	2	18	4	14
Hawaii	17	1	16	5	11	16	2	14	6	8
Idaho	15	1	13	4	10	15	2	14	4	10
Illinois	20	1	19	4	15	22	1	21	6	14
Indiana	22	2	20	3	17	23	1	22	5	17
Iowa	18	1	17	3	14	20	1	19	3	16
Kansas	26	2	25	10	15	28	1	26	14	13
Kentucky	15	1	14	3	11	19	2	17	5	12
Louisiana	22	1	21	3	18	24	2	22	3	19
Maine	22	2	20	2	17	22	2	20	3	17
Maryland	21	1	20	2	17	21	1	19	4	15
Massachusetts	27	2	25	8	17	27	2	25	8	18
Michigan	20	2	18	7	11	19	3	16	6	10
Minnesota	22	1	20	10	11	23	2	21	11	9
Mississippi	12	1	11	4	7	14	1	13	5	8
Missouri	16	1	14	3	11	16	1	15	6	10
Montana	15	2	13	5	9	14	1	13	5	8
Nebraska	22	2	21	6	14	23	1	22	6	16
Nevada	31	1	30	7	23	33	2	31	11	20
New Hampshire	18	1	17	2	15	21	1	20	3	16
New Jersey	19	1	18	1	17	21	2	19	2	17
New Mexico	28	1	27	10	17	29	2	26	9	17
New York	22	1	21	1	20	25	1	23	1	22
North Carolina	20	1	19	5	14	19	1	18	5	13
North Dakota	16	3	13	3	10	15	2	13	4	9
Ohio	17	1	16	3	14	19	2	17	2	16
Oklahoma	22	2	20	6	14	24	2	21	8	14
Oregon	27	2	24	9	15	25	2	23	9	14
Pennsylvania	18	2	17	4	13	21	2	20	5	14
Rhode Island	19	1	18	3	15	20	2	18	5	13
South Carolina	20	1	19	7	12	21	1	20	8	12
South Dakota	19	1	17	7	11	19	1	18	7	11
Tennessee	18	1	16	3	14	20	2	18	4	14
Texas	33	2	31	13	18	34	3	32	12	19
Utah	18	1	16	4	13	16	1	15	7	8
Vermont	19	1	18	2	16	20	2	19	3	16
Virginia	19	2	18	5	13	18	2	17	4	13
Washington	22	2	20	6	14	24	1	23	9	14
West Virginia	19	2	17	7	10	21	1	20	8	11
Wisconsin	21	2	20	3	16	19	1	18	5	13
Wyoming	18	1	17	4	13	18	1	17	4	13
Other jurisdictions										
District of Columbia	20	1	19	1	18	19	2	17	2	15
DoDEA ¹	19	2	17	5	12	22	1	21	7	13
Puerto Rico	29	#	29	1	27	31	#	31	1	29

See notes at end of table.

Table A-18. Percentage of fourth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2017					2019				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	25	2	23	10	13	27	2	25	10	15
Alabama	15	1	14	8	6	19	2	18	9	9
Alaska	27	1	26	13	13	30	1	29	12	17
Arizona	21	2	19	5	14	20	1	19	7	12
Arkansas	24	2	23	7	16	24	1	23	5	18
California	34	3	31	25	6	34	3	31	23	8
Colorado	24	1	23	13	10	25	1	24	13	11
Connecticut	22	2	20	5	15	24	2	23	6	16
Delaware	26	2	24	9	15	31	2	30	12	18
Florida	25	3	22	2	20	30	2	27	3	24
Georgia	18	2	16	4	12	24	2	23	7	16
Hawaii	15	3	13	7	6	24	2	22	14	8
Idaho	16	1	15	6	9	20	1	18	9	9
Illinois	24	2	23	7	16	28	1	27	12	16
Indiana	22	1	20	6	15	27	1	25	5	20
Iowa	20	2	18	4	14	20	1	19	3	15
Kansas	26	1	25	16	9	25	1	23	13	11
Kentucky	19	2	17	6	11	22	2	20	5	15
Louisiana	23	2	21	3	17	22	2	20	2	18
Maine	23	1	22	8	14	25	1	24	5	19
Maryland	22	1	21	5	16	27	2	25	6	19
Massachusetts	28	2	25	8	17	31	2	29	10	19
Michigan	20	3	17	11	6	22	2	21	10	11
Minnesota	22	2	20	14	6	25	2	24	15	9
Mississippi	16	1	15	6	9	17	1	16	5	11
Missouri	18	1	17	7	10	21	1	19	7	12
Montana	16	1	15	7	8	19	1	17	8	9
Nebraska	24	2	23	8	15	23	1	22	7	15
Nevada	27	1	25	18	7	30	2	28	19	9
New Hampshire	21	1	20	5	14	22	1	21	6	15
New Jersey	21	2	19	4	15	25	2	23	2	21
New Mexico	29	2	27	11	16	34	2	32	14	18
New York	24	2	22	3	19	25	3	23	3	19
North Carolina	20	2	18	6	12	23	1	22	8	14
North Dakota	15	1	14	6	8	18	2	17	6	11
Ohio	19	2	17	3	14	20	3	17	2	15
Oklahoma	25	2	23	9	14	28	2	26	10	16
Oregon	28	2	26	16	10	24	1	23	13	9
Pennsylvania	20	2	18	6	13	23	2	20	6	14
Rhode Island	21	2	19	4	15	27	2	25	7	19
South Carolina	22	1	21	13	8	20	1	19	8	11
South Dakota	18	1	17	10	6	22	1	21	11	10
Tennessee	18	2	16	6	10	22	2	20	6	14
Texas	37	3	34	15	19	35	3	33	12	21
Utah	21	2	19	12	8	23	2	21	13	8
Vermont	20	1	19	5	13	23	1	22	6	16
Virginia	21	2	19	8	11	25	1	24	9	15
Washington	25	2	23	15	8	26	3	24	13	11
West Virginia	22	1	21	11	10	22	1	21	10	11
Wisconsin	21	2	20	8	12	21	1	20	7	12
Wyoming	17	1	15	5	10	20	1	19	5	14
Other jurisdictions										
District of Columbia	22	2	20	4	16	28	2	26	3	24
DoDEA ¹	21	1	20	8	12	24	2	22	7	15
Puerto Rico	31	#	31	2	30	33	#	32	2	31

See notes at end of table.

Table A-18. Percentage of fourth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	29	2	27	12	15
Alabama	21	1	20	9	10
Alaska	29	1	28	12	17
Arizona	22	1	20	9	11
Arkansas	26	1	25	3	21
California	35	2	33	26	7
Colorado	28	2	26	14	12
Connecticut	29	2	26	9	17
Delaware	33	2	32	15	17
Florida	29	3	26	4	22
Georgia	26	1	25	10	15
Hawaii	25	2	23	16	7
Idaho	22	1	21	11	10
Illinois	32	1	31	12	19
Indiana	27	#	26	7	20
Iowa	19	1	18	4	13
Kansas	29	1	28	18	10
Kentucky	24	2	22	6	17
Louisiana	23	2	21	2	19
Maine	25	2	23	7	16
Maryland	29	1	28	7	21
Massachusetts	31	2	29	10	18
Michigan	23	3	20	12	8
Minnesota	28	2	26	15	10
Mississippi	20	1	20	6	14
Missouri	20	1	19	7	12
Montana	18	1	17	7	11
Nebraska	25	1	23	9	14
Nevada	29	2	28	22	6
New Hampshire	24	1	22	6	16
New Jersey	26	2	24	4	20
New Mexico	35	2	33	18	16
New York	28	1	26	5	21
North Carolina	26	2	24	11	13
North Dakota	19	1	17	6	12
Ohio	20	1	19	3	16
Oklahoma	32	2	30	13	16
Oregon	26	2	24	14	10
Pennsylvania	24	2	22	7	14
Rhode Island	28	2	26	9	17
South Carolina	22	1	21	9	12
South Dakota	23	1	22	13	9
Tennessee	22	2	20	6	14
Texas	41	3	38	18	19
Utah	27	1	26	14	12
Vermont	23	1	22	6	16
Virginia	28	3	25	11	14
Washington	28	2	26	16	10
West Virginia	23	2	21	10	11
Wisconsin	23	1	22	10	12
Wyoming	21	1	20	7	14
Other jurisdictions					
District of Columbia	26	2	24	7	18
DoDEA ¹	26	2	24	7	18
Puerto Rico	33	#	33	2	31

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–22 Mathematics Assessments.

Table A-19. Percentage of eighth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: Various years, 1990–2000

State/jurisdiction	1990			1992			1996			2000		
	Identified	Excluded	Assessed									
Nation (public)	—	—	—	10	6	4	11	5	7	15	7	8
Alabama	9	5	4	10	5	5	13	7	6	14	5	9
Alaska	—	—	—	—	—	—	15	5	10	—	—	—
Arizona	12	5	7	12	6	7	17	9	8	19	9	10
Arkansas	11	7	3	11	6	5	11	7	4	14	8	5
California	15	7	8	20	8	12	20	10	10	27	9	18
Colorado	10	4	5	10	4	5	12	4	8	—	—	—
Connecticut	11	6	5	14	7	8	15	8	7	16	10	6
Delaware	9	4	5	10	4	6	13	9	4	—	—	—
Florida	11	6	5	13	6	7	16	10	6	—	—	—
Georgia	7	3	3	8	5	3	10	7	3	11	7	3
Hawaii	10	4	5	13	5	8	12	5	7	20	7	13
Idaho	6	2	4	7	3	4	—	—	—	14	5	9
Illinois	9	5	4	—	—	—	—	—	—	15	8	7
Indiana	7	5	2	9	5	4	12	6	7	12	7	5
Iowa	10	4	6	11	4	6	13	5	7	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	14	6	8
Kentucky	7	5	3	9	5	4	9	5	5	14	9	4
Louisiana	6	4	2	7	4	3	10	6	4	13	6	7
Maine	—	—	—	11	4	6	12	5	7	15	9	6
Maryland	11	4	6	11	5	6	12	7	5	13	11	3
Massachusetts	—	—	—	18	8	9	17	8	9	19	12	7
Michigan	8	4	4	9	6	3	9	5	4	11	7	4
Minnesota	9	3	6	7	3	4	11	3	8	15	5	10
Mississippi	—	—	—	10	7	3	11	7	4	11	7	3
Missouri	—	—	—	11	4	6	12	7	5	15	9	6
Montana	6	2	4	—	—	—	9	3	6	12	5	6
Nebraska	9	3	6	10	4	6	12	4	8	13	3	10
Nevada	—	—	—	—	—	—	16	8	8	16	10	6
New Hampshire	12	4	8	12	5	7	15	4	11	—	—	—
New Jersey	12	7	5	14	7	7	13	7	6	—	—	—
New Mexico	9	6	3	12	5	7	18	8	10	25	12	14
New York	12	6	6	13	8	4	14	8	6	16	13	3
North Carolina	9	3	6	12	3	9	9	4	5	16	14	2
North Dakota	8	3	5	8	2	5	10	3	6	11	4	7
Ohio	8	5	3	10	6	4	—	—	—	11	9	3
Oklahoma	8	5	3	10	6	4	—	—	—	15	9	6
Oregon	8	3	5	—	—	—	12	4	8	17	6	11
Pennsylvania	10	5	5	9	4	5	—	—	—	—	—	—
Rhode Island	14	6	8	14	5	8	17	7	10	20	12	8
South Carolina	—	—	—	10	6	4	10	6	4	13	7	6
Tennessee	—	—	—	10	5	5	11	4	7	13	5	8
Texas	12	6	6	14	7	7	17	9	8	20	10	11
Utah	—	—	—	9	4	5	11	6	5	14	6	8
Vermont	—	—	—	—	—	—	12	4	8	17	10	7
Virginia	9	5	4	12	5	7	13	7	6	15	10	5
Washington	—	—	—	—	—	—	13	6	7	—	—	—
West Virginia	9	5	4	10	6	4	13	8	4	15	11	3
Wisconsin	8	4	4	10	4	6	12	7	5	17	10	7
Wyoming	8	3	5	9	4	5	10	2	8	13	4	9
Other jurisdictions												
District of Columbia	6	5	1	11	10	2	13	10	4	15	9	6
DoDEA ¹	—	—	—	—	—	—	8	3	5	9	5	3

— Not available.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1990 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2000 Mathematics Assessments.

Table A-20. Percentage of eighth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	4	10	7	3	19	4	15	8	7
Alabama	14	6	8	7	1	14	2	11	9	3
Alaska	—	—	—	—	—	23	1	22	14	8
Arizona	19	3	16	11	4	24	4	20	15	6
Arkansas	14	2	11	8	4	17	2	15	7	8
California	27	4	22	17	5	27	3	25	22	3
Colorado	—	—	—	—	—	15	2	14	5	8
Connecticut	16	6	10	6	4	17	4	13	5	8
Delaware	—	—	—	—	—	18	9	9	3	6
Florida	—	—	—	—	—	19	3	16	5	11
Georgia	11	5	6	3	3	13	2	11	5	6
Hawaii	20	5	15	13	2	20	4	17	8	9
Idaho	14	2	12	8	4	15	1	14	9	5
Illinois	15	5	11	7	3	18	4	14	4	9
Indiana	12	3	9	6	3	15	2	13	6	7
Iowa	—	—	—	—	—	17	2	15	6	9
Kansas	14	3	10	8	3	16	3	13	4	9
Kentucky	14	4	9	5	4	14	4	9	4	5
Louisiana	13	3	10	4	6	16	5	12	2	10
Maine	15	3	12	7	5	17	4	13	5	8
Maryland	13	3	11	7	4	16	4	12	7	5
Massachusetts	19	3	17	8	9	18	3	15	4	11
Michigan	11	4	7	5	2	15	5	10	4	6
Minnesota	15	2	13	11	3	16	2	14	8	6
Mississippi	11	5	5	4	1	9	5	4	3	2
Missouri	15	3	12	5	7	16	4	12	3	9
Montana	12	2	9	6	3	14	2	12	5	6
Nebraska	13	4	10	7	2	16	4	13	7	5
Nevada	16	4	12	8	5	18	2	16	9	6
New Hampshire	—	—	—	—	—	20	3	16	6	10
New Jersey	—	—	—	—	—	18	2	16	2	14
New Mexico	25	7	18	14	4	32	2	30	16	14
New York	16	4	12	5	7	20	5	15	3	12
North Carolina	16	5	11	4	7	18	4	15	3	12
North Dakota	11	2	9	8	2	16	1	14	7	7
Ohio	11	4	7	4	3	13	5	8	3	5
Oklahoma	15	4	11	8	3	19	2	17	10	7
Oregon	17	3	14	8	6	20	3	16	11	6
Pennsylvania	—	—	—	—	—	15	2	14	3	11
Rhode Island	20	3	16	12	4	23	4	20	7	13
South Carolina	13	4	9	7	2	15	7	8	5	4
South Dakota	—	—	—	—	—	13	2	11	6	6
Tennessee	13	2	10	9	1	16	3	13	12	1
Texas	20	8	12	10	2	20	7	13	11	2
Utah	14	3	11	8	3	16	3	14	9	5
Vermont	17	3	14	10	4	18	3	15	7	7
Virginia	15	6	9	5	4	17	7	10	4	6
Washington	—	—	—	—	—	16	2	14	10	5
West Virginia	15	3	12	4	8	16	3	14	5	9
Wisconsin	17	4	13	6	6	17	3	14	3	11
Wyoming	13	1	12	9	3	17	1	15	6	10
Other jurisdictions										
District of Columbia	15	6	9	3	6	20	6	14	5	9
DoDEA ¹	9	1	8	6	2	11	1	10	4	6
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-20. Percentage of eighth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	19	4	15	7	8	18	4	14	6	8
Alabama	14	1	13	10	3	14	3	11	9	2
Alaska	27	2	25	14	11	26	4	22	13	9
Arizona	23	5	18	12	6	19	3	15	9	6
Arkansas	15	3	12	5	7	15	2	13	3	10
California	28	2	25	21	4	28	2	26	21	5
Colorado	17	3	14	5	9	16	2	14	4	10
Connecticut	16	3	13	5	9	16	2	15	4	11
Delaware	18	11	7	4	3	16	7	10	3	7
Florida	21	3	18	4	13	19	3	15	2	13
Georgia	14	2	11	4	7	11	5	7	3	4
Hawaii	20	3	17	8	9	19	2	18	8	10
Idaho	17	2	15	8	7	15	2	13	7	7
Illinois	18	3	14	4	11	18	6	12	3	9
Indiana	17	4	13	3	10	18	6	13	3	9
Iowa	17	3	15	4	10	18	2	15	3	12
Kansas	17	4	13	4	9	16	4	12	5	8
Kentucky	12	3	9	2	6	14	7	8	2	6
Louisiana	15	4	11	1	10	13	3	10	1	9
Maine	19	5	14	5	9	18	5	13	4	9
Maryland	13	4	9	4	4	13	7	6	2	4
Massachusetts	20	6	13	4	10	20	9	11	3	7
Michigan	16	4	12	4	8	15	5	11	3	8
Minnesota	18	2	15	8	7	16	2	14	6	8
Mississippi	10	3	7	3	3	11	2	9	2	7
Missouri	15	4	11	3	8	15	5	10	3	7
Montana	16	2	14	5	9	17	3	14	4	9
Nebraska	16	1	14	6	9	15	3	13	5	8
Nevada	19	2	17	10	7	20	4	17	9	8
New Hampshire	19	2	17	6	11	21	3	17	6	12
New Jersey	18	4	15	2	12	18	3	15	2	12
New Mexico	30	3	26	13	13	26	3	23	14	9
New York	19	4	15	2	13	18	3	14	1	14
North Carolina	17	3	15	3	12	17	2	15	3	12
North Dakota	17	4	13	4	8	16	6	10	3	7
Ohio	14	6	9	2	7	16	7	9	2	7
Oklahoma	20	4	15	7	8	18	8	9	5	5
Oregon	19	3	16	9	8	19	3	16	8	8
Pennsylvania	16	3	13	3	10	17	4	13	3	10
Rhode Island	21	3	18	7	11	20	3	17	5	12
South Carolina	15	6	9	5	4	15	5	10	4	5
South Dakota	14	2	11	4	7	12	2	9	3	6
Tennessee	15	5	11	5	5	13	6	7	4	3
Texas	19	6	13	9	4	17	6	12	7	5
Utah	17	2	14	6	8	18	3	15	8	7
Vermont	19	4	15	7	9	21	4	16	5	11
Virginia	18	5	13	5	8	17	7	11	4	7
Washington	16	2	13	5	8	16	4	13	5	8
West Virginia	17	3	14	6	8	17	2	15	6	10
Wisconsin	18	4	13	3	10	18	5	13	2	11
Wyoming	17	2	15	5	10	15	2	13	4	9
Other jurisdictions										
District of Columbia	19	6	14	2	11	21	10	11	3	8
DoDEA ¹	13	2	11	4	7	12	2	10	3	7
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-20. Percentage of eighth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	18	3	15	5	10	18	3	15	5	10
Alabama	11	2	10	7	3	12	1	11	7	4
Alaska	21	3	18	5	13	21	3	18	4	14
Arizona	16	2	14	5	9	12	1	11	2	9
Arkansas	16	1	15	3	11	16	1	14	3	12
California	25	2	24	18	6	23	1	22	15	7
Colorado	17	2	15	5	10	16	1	15	5	10
Connecticut	16	2	14	3	11	16	1	15	2	12
Delaware	17	3	14	1	13	16	3	13	2	11
Florida	19	2	17	1	16	19	2	17	1	16
Georgia	13	3	10	2	9	12	3	9	2	7
Hawaii	18	2	16	6	10	20	2	18	7	11
Idaho	12	1	11	5	6	12	1	10	3	7
Illinois	16	3	13	3	11	17	2	15	3	12
Indiana	16	4	12	3	9	17	3	14	2	12
Iowa	16	3	14	2	11	17	1	16	2	14
Kansas	17	3	14	4	9	18	1	16	7	9
Kentucky	13	5	8	2	7	13	3	10	2	8
Louisiana	16	2	14	2	12	15	1	14	1	13
Maine	19	2	16	4	13	20	2	18	4	14
Maryland	14	7	7	1	6	14	6	8	1	7
Massachusetts	21	6	15	4	11	22	4	18	3	15
Michigan	15	3	12	3	8	14	4	11	3	8
Minnesota	17	3	15	6	9	17	2	15	6	9
Mississippi	10	2	8	2	7	8	1	7	1	6
Missouri	14	3	10	3	8	14	1	12	2	10
Montana	14	3	11	3	8	13	2	12	2	9
Nebraska	17	3	13	4	9	16	4	13	4	9
Nevada	17	2	15	6	9	18	3	15	6	9
New Hampshire	21	3	18	6	13	20	2	18	4	14
New Jersey	18	2	16	2	14	19	4	15	1	14
New Mexico	21	3	18	7	11	22	2	20	10	10
New York	20	3	17	1	16	20	1	19	#	18
North Carolina	17	2	15	3	13	18	2	16	3	12
North Dakota	16	5	11	4	7	16	4	11	3	9
Ohio	15	5	10	1	9	16	5	11	1	10
Oklahoma	18	6	11	4	8	18	10	8	4	4
Oregon	18	3	16	7	8	18	1	16	6	11
Pennsylvania	19	3	16	3	13	17	2	15	2	13
Rhode Island	21	2	18	4	14	19	1	18	4	13
South Carolina	16	4	12	5	7	15	4	11	4	8
South Dakota	12	2	10	3	7	13	2	11	4	7
Tennessee	12	4	8	1	7	13	4	9	1	8
Texas	17	5	13	6	6	18	5	13	8	5
Utah	14	3	11	4	7	14	3	11	3	8
Vermont	21	2	19	5	13	20	1	18	4	15
Virginia	17	4	13	4	9	18	3	15	6	9
Washington	14	2	12	4	8	16	2	14	4	10
West Virginia	15	2	14	4	10	14	2	12	3	9
Wisconsin	18	3	15	3	12	18	2	16	2	14
Wyoming	15	2	13	3	10	14	1	13	2	11
Other jurisdictions										
District of Columbia	20	6	14	2	12	21	4	17	2	15
DoDEA ¹	13	2	11	4	7	14	3	11	3	8
Puerto Rico	—	—	—	—	—	19	1	18	#	17

See notes at end of table.

Table A-20. Percentage of eighth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	17	2	16	3	12	19	2	17	5	13
Alabama	11	1	10	5	5	11	1	10	4	6
Alaska	23	1	22	3	19	23	2	21	4	17
Arizona	13	1	12	1	11	14	1	13	3	11
Arkansas	19	2	17	3	14	19	2	17	4	13
California	19	1	18	10	8	22	1	21	13	8
Colorado	18	1	17	5	11	21	1	19	9	11
Connecticut	18	2	16	2	14	19	1	17	3	15
Delaware	17	1	16	1	15	19	2	17	3	15
Florida	18	2	16	1	15	20	2	18	1	17
Georgia	13	2	12	2	10	15	1	13	2	11
Hawaii	21	2	19	7	12	17	2	16	6	9
Idaho	12	1	11	2	8	13	2	11	2	9
Illinois	17	1	16	2	14	17	1	16	3	13
Indiana	18	2	16	2	14	19	1	18	3	15
Iowa	15	1	14	1	13	16	1	15	3	12
Kansas	19	2	18	7	11	22	1	21	11	10
Kentucky	13	2	11	1	10	14	1	12	1	11
Louisiana	16	1	15	1	14	19	2	17	1	16
Maine	20	1	18	2	16	21	1	19	4	16
Maryland	16	2	14	1	13	18	2	16	2	14
Massachusetts	22	2	20	4	16	24	2	22	4	18
Michigan	16	2	13	3	11	16	2	14	4	10
Minnesota	18	2	16	7	9	19	2	17	8	9
Mississippi	9	1	8	2	7	11	1	10	2	8
Missouri	13	1	12	2	11	15	2	13	2	11
Montana	13	1	12	2	9	13	1	12	4	8
Nebraska	16	2	14	2	12	17	2	15	3	11
Nevada	16	1	15	3	12	23	1	21	12	10
New Hampshire	20	1	19	3	16	19	1	17	3	15
New Jersey	18	2	17	#	16	20	1	19	1	18
New Mexico	24	2	22	10	12	24	2	22	10	12
New York	22	2	20	#	19	22	1	21	1	20
North Carolina	18	1	17	3	14	18	1	17	3	14
North Dakota	16	3	13	1	11	16	2	14	2	11
Ohio	16	2	14	1	14	19	2	17	1	16
Oklahoma	19	2	17	3	14	20	2	19	4	15
Oregon	16	1	15	4	11	17	2	14	4	11
Pennsylvania	19	2	17	2	15	19	2	17	2	14
Rhode Island	19	1	18	2	16	20	2	18	4	14
South Carolina	15	1	14	4	10	17	1	15	5	10
South Dakota	13	1	12	3	9	14	1	12	5	8
Tennessee	12	2	10	1	10	16	2	14	1	13
Texas	18	2	16	4	12	21	2	19	6	13
Utah	14	2	12	2	10	13	1	12	3	9
Vermont	18	1	17	2	15	20	1	19	2	17
Virginia	17	1	16	4	12	18	2	16	3	12
Washington	16	2	14	3	11	18	1	17	5	12
West Virginia	13	2	12	3	9	15	2	13	2	11
Wisconsin	18	2	17	2	15	17	1	16	3	12
Wyoming	16	2	14	2	13	16	1	15	2	13
Other jurisdictions										
District of Columbia	23	1	22	1	21	25	3	21	2	20
DoDEA ¹	14	1	12	3	9	15	1	14	4	10
Puerto Rico	23	#	23	#	23	25	#	25	1	24

See notes at end of table.

Table A-20. Percentage of eighth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2017					2019				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	20	2	18	6	12	21	2	19	6	13
Alabama	13	2	11	7	4	13	1	12	5	6
Alaska	23	2	22	8	14	24	1	23	7	15
Arizona	14	1	13	3	9	19	2	17	5	12
Arkansas	21	2	19	7	13	21	2	19	3	16
California	23	2	21	13	7	24	2	22	13	10
Colorado	20	2	18	9	9	18	1	17	7	10
Connecticut	20	2	17	4	13	21	2	19	5	14
Delaware	19	2	17	4	13	21	2	19	5	14
Florida	21	3	19	2	17	24	2	22	2	20
Georgia	15	2	13	2	11	17	2	16	2	14
Hawaii	16	2	14	8	6	16	2	14	9	5
Idaho	13	1	12	4	8	15	1	14	4	10
Illinois	18	1	16	3	14	19	1	18	3	15
Indiana	19	2	18	4	14	21	2	19	3	16
Iowa	16	1	15	2	12	18	1	17	3	15
Kansas	23	1	22	14	8	21	1	20	10	10
Kentucky	15	1	13	2	12	16	2	15	1	13
Louisiana	21	3	18	1	17	20	2	18	1	17
Maine	21	2	19	4	15	22	1	21	4	17
Maryland	17	2	16	1	14	19	2	17	1	16
Massachusetts	24	2	22	6	16	24	2	22	6	16
Michigan	19	3	16	6	10	19	2	16	5	11
Minnesota	19	2	17	11	6	20	2	18	9	9
Mississippi	12	1	11	3	8	13	1	12	3	9
Missouri	15	2	14	4	10	15	1	15	4	11
Montana	15	1	14	6	8	16	1	15	4	11
Nebraska	18	2	16	4	12	18	1	17	4	13
Nevada	22	2	21	13	7	22	1	21	13	8
New Hampshire	19	1	17	5	12	21	1	20	6	14
New Jersey	20	2	19	1	17	21	2	20	2	18
New Mexico	24	2	22	8	14	25	2	24	9	14
New York	23	2	21	2	19	24	1	22	1	21
North Carolina	17	2	15	5	10	17	1	16	4	12
North Dakota	16	2	15	5	9	15	1	14	3	11
Ohio	18	2	16	1	14	19	2	17	1	16
Oklahoma	20	2	19	5	14	20	2	18	5	12
Oregon	18	1	16	7	9	20	1	18	8	10
Pennsylvania	19	2	17	4	13	22	1	20	5	15
Rhode Island	21	2	19	4	15	22	1	20	5	15
South Carolina	20	1	19	12	6	20	1	18	9	9
South Dakota	15	3	13	9	4	15	1	14	7	7
Tennessee	17	2	14	3	11	15	2	13	3	11
Texas	23	2	21	8	13	27	2	25	12	13
Utah	15	1	13	4	9	18	1	17	6	11
Vermont	21	1	20	4	16	21	1	19	4	15
Virginia	17	2	15	5	10	19	2	17	4	12
Washington	18	2	17	6	11	20	2	19	8	10
West Virginia	16	2	14	5	8	17	1	16	5	11
Wisconsin	17	2	16	4	12	17	1	16	3	12
Wyoming	15	1	14	3	11	16	2	15	3	12
Other jurisdictions										
District of Columbia	24	2	22	2	19	25	2	24	2	22
DoDEA ¹	15	1	14	4	10	17	1	15	4	11
Puerto Rico	29	#	29	2	27	29	#	29	1	28

See notes at end of table.

Table A-20. Percentage of eighth-grade public school students identified as students with disabilities and/or English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	24	2	22	8	14
Alabama	17	2	15	6	9
Alaska	26	1	25	11	14
Arizona	19	2	17	8	10
Arkansas	23	1	23	3	20
California	27	2	24	16	9
Colorado	21	1	20	9	10
Connecticut	23	2	22	4	18
Delaware	27	2	25	7	18
Florida	26	3	24	2	22
Georgia	22	2	20	3	17
Hawaii	22	2	20	16	4
Idaho	18	1	17	5	11
Illinois	25	1	24	7	16
Indiana	21	1	21	3	18
Iowa	20	1	18	3	15
Kansas	20	1	19	8	11
Kentucky	19	2	17	3	14
Louisiana	23	2	21	1	20
Maine	24	1	23	5	19
Maryland	22	2	20	2	18
Massachusetts	26	3	23	5	18
Michigan	19	2	17	6	10
Minnesota	21	2	18	10	9
Mississippi	17	1	16	4	12
Missouri	18	1	17	6	12
Montana	18	1	16	4	12
Nebraska	19	2	17	5	13
Nevada	20	1	19	12	7
New Hampshire	22	1	21	8	13
New Jersey	23	2	21	2	20
New Mexico	33	2	31	17	14
New York	24	2	23	2	21
North Carolina	20	1	19	6	13
North Dakota	17	1	16	4	12
Ohio	19	1	18	2	16
Oklahoma	25	2	23	8	15
Oregon	21	2	19	9	11
Pennsylvania	23	1	22	5	17
Rhode Island	25	2	23	7	17
South Carolina	19	1	18	8	10
South Dakota	17	2	16	9	7
Tennessee	17	2	15	3	12
Texas	34	2	32	16	16
Utah	22	2	21	8	12
Vermont	23	2	22	5	16
Virginia	20	2	18	6	12
Washington	21	1	19	9	11
West Virginia	19	2	18	6	12
Wisconsin	18	1	17	4	12
Wyoming	16	1	15	3	12
Other jurisdictions					
District of Columbia	18	1	17	4	13
DoDEA ¹	18	1	17	4	13
Puerto Rico	30	#	30	#	30

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–22 Mathematics Assessments.

Table A-21. Percentage of fourth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: 1992, 1996, and 2000

State/jurisdiction	1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation (public)	7	5	3	12	5	7	12	6	6
Alabama	10	4	6	11	6	5	12	6	7
Alaska	—	—	—	13	4	10	—	—	—
Arizona	7	3	4	10	7	3	11	6	4
Arkansas	11	5	6	9	6	3	13	7	6
California	7	3	4	8	5	3	8	3	5
Colorado	8	4	4	12	7	5	—	—	—
Connecticut	10	4	6	14	7	7	11	8	3
Delaware	11	5	6	12	6	6	—	—	—
Florida	13	7	6	14	7	7	—	—	—
Georgia	9	5	4	11	6	5	9	6	4
Hawaii	10	5	5	10	4	5	13	8	5
Idaho	8	3	5	—	—	—	12	5	6
Illinois	—	—	—	—	—	—	11	7	4
Indiana	6	3	3	11	5	6	11	6	4
Iowa	8	3	5	11	5	6	14	10	4
Kansas	—	—	—	—	—	—	12	6	6
Kentucky	8	3	5	10	6	4	11	8	3
Louisiana	7	4	3	13	7	6	15	7	8
Maine	14	6	8	14	7	7	16	10	6
Maryland	10	3	7	13	7	6	11	8	3
Massachusetts	15	6	9	15	7	8	14	8	6
Michigan	7	5	2	10	6	4	9	7	2
Minnesota	7	3	4	11	5	6	12	4	7
Mississippi	7	5	2	8	6	2	6	4	2
Missouri	12	4	7	14	5	9	15	9	5
Montana	—	—	—	10	5	5	11	5	5
Nebraska	12	4	8	14	4	10	16	6	9
Nevada	—	—	—	9	5	4	10	6	4
New Hampshire	12	4	8	—	—	—	—	—	—
New Jersey	8	3	5	9	5	4	—	—	—
New Mexico	12	6	6	14	8	6	15	9	6
New York	7	3	3	10	5	5	11	9	2
North Carolina	11	3	8	13	6	6	14	12	2
North Dakota	8	2	7	10	3	7	12	6	6
Ohio	10	6	4	—	—	—	12	10	2
Oklahoma	11	7	4	—	—	—	16	10	6
Oregon	—	—	—	13	6	7	14	6	7
Pennsylvania	8	3	5	8	4	4	—	—	—
Rhode Island	10	4	7	13	5	8	16	9	7
South Carolina	10	5	5	12	5	7	17	7	9
Tennessee	11	4	8	12	6	6	10	4	7
Texas	9	5	5	12	7	5	15	10	5
Utah	9	4	5	11	5	6	9	5	4
Vermont	—	—	—	14	6	8	14	10	4
Virginia	10	5	5	12	6	6	13	10	3
Washington	—	—	—	10	5	6	—	—	—
West Virginia	9	4	4	13	8	5	13	10	3
Wisconsin	9	5	5	10	7	3	15	10	5
Wyoming	9	3	6	12	4	8	13	5	8
Other jurisdictions									
District of Columbia	8	7	1	9	7	1	14	7	7
DoDEA ¹	—	—	—	8	4	4	8	4	4

— Not available.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1992 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table A-22. Percentage of fourth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22

State/jurisdiction	2000						2003					
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations		Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	
Nation (public)	13	3	9	5	4		14	3	11	4	7	
Alabama	13	3	9	7	3		11	2	10	7	2	
Alaska	—	—	—	—	—		16	1	15	6	9	
Arizona	11	3	8	4	4		12	3	9	5	3	
Arkansas	12	4	8	5	4		14	1	12	5	8	
California	8	3	5	4	1		10	2	8	6	2	
Colorado	—	—	—	—	—		12	2	11	3	7	
Connecticut	11	3	8	4	4		13	3	10	3	6	
Delaware	—	—	—	—	—		16	6	10	3	7	
Florida	—	—	—	—	—		18	2	16	4	12	
Georgia	9	3	7	3	4		12	2	11	4	7	
Hawaii	13	6	7	5	2		11	2	10	3	6	
Idaho	12	1	11	5	6		12	1	11	4	7	
Illinois	11	2	9	3	6		15	3	13	4	9	
Indiana	10	2	8	3	5		14	2	12	6	6	
Iowa	13	1	11	4	7		15	2	13	3	10	
Kansas	12	3	9	5	4		14	1	12	2	10	
Kentucky	11	3	8	3	5		13	3	11	4	7	
Louisiana	15	3	13	2	11		21	3	18	3	16	
Maine	15	4	11	4	7		18	3	14	4	10	
Maryland	11	2	9	4	5		13	3	10	4	6	
Massachusetts	14	1	14	5	9		18	2	16	2	14	
Michigan	10	3	7	3	4		11	3	7	2	5	
Minnesota	12	2	10	5	5		14	2	11	5	6	
Mississippi	6	3	3	1	2		10	5	5	3	1	
Missouri	14	2	12	5	7		15	3	12	3	9	
Montana	12	2	10	5	6		14	2	12	5	7	
Nebraska	15	2	13	9	4		16	2	14	6	8	
Nevada	10	3	7	3	4		13	3	10	5	5	
New Hampshire	—	—	—	—	—		18	3	16	4	11	
New Jersey	—	—	—	—	—		14	2	13	1	12	
New Mexico	15	5	10	5	5		17	2	15	7	9	
New York	11	2	8	#	8		13	3	10	1	10	
North Carolina	14	4	10	3	7		17	4	14	3	10	
North Dakota	11	1	9	5	4		15	2	14	6	7	
Ohio	12	4	7	2	5		12	4	8	2	7	
Oklahoma	16	4	12	7	4		17	3	14	6	8	
Oregon	14	2	12	6	5		17	4	14	7	7	
Pennsylvania	—	—	—	—	—		13	2	11	2	9	
Rhode Island	16	2	14	6	8		20	2	18	5	13	
South Carolina	17	5	12	7	5		17	6	11	6	4	
South Dakota	—	—	—	—	—		15	1	13	7	6	
Tennessee	10	2	8	7	1		13	2	11	6	5	
Texas	15	6	9	6	3		15	7	8	5	3	
Utah	9	3	6	4	2		12	2	10	5	5	
Vermont	15	3	12	4	8		17	4	13	4	10	
Virginia	13	3	10	4	6		13	4	9	3	6	
Washington	—	—	—	—	—		14	2	12	5	7	
West Virginia	13	3	11	3	8		15	3	12	3	9	
Wisconsin	15	4	10	5	6		15	3	12	2	10	
Wyoming	14	2	12	6	6		15	1	14	3	11	
Other jurisdictions												
District of Columbia	13	3	10	5	5		13	4	10	2	7	
DoDEA ¹	8	2	6	3	4		10	1	9	2	6	
Puerto Rico	—	—	—	—	—		—	—	—	—	—	

See notes at end of table.

Table A-22. Percentage of fourth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	3	11	4	8	14	3	11	3	8
Alabama	11	1	10	7	3	11	1	10	6	4
Alaska	15	1	14	4	10	16	1	15	4	10
Arizona	11	3	9	3	5	11	2	9	4	5
Arkansas	13	2	11	3	8	12	2	9	2	7
California	10	2	8	4	3	10	2	8	4	4
Colorado	12	2	10	2	8	12	2	11	2	9
Connecticut	13	2	11	3	8	13	1	11	2	9
Delaware	16	7	9	2	7	17	5	12	3	9
Florida	18	2	16	3	12	15	2	13	1	12
Georgia	14	2	12	5	7	12	2	10	3	7
Hawaii	11	2	10	3	7	11	1	10	2	8
Idaho	11	1	10	3	7	11	1	9	3	6
Illinois	14	2	12	4	8	15	3	11	4	8
Indiana	15	1	14	4	10	17	3	14	6	9
Iowa	14	2	13	2	11	13	1	12	2	10
Kansas	14	2	11	3	8	13	3	10	3	7
Kentucky	14	2	12	3	9	15	2	13	5	7
Louisiana	24	4	20	3	17	18	2	15	3	13
Maine	19	3	16	4	12	18	3	15	3	11
Maryland	13	3	10	3	7	12	4	9	3	6
Massachusetts	18	3	15	3	12	18	5	13	3	11
Michigan	14	4	11	3	7	13	3	10	4	7
Minnesota	13	2	11	5	6	13	2	12	4	7
Mississippi	11	2	8	5	4	10	1	9	4	6
Missouri	16	2	14	5	9	15	3	11	4	7
Montana	12	2	10	2	7	13	2	10	2	8
Nebraska	18	2	16	6	10	17	2	14	5	9
Nevada	12	3	10	3	6	13	2	11	5	6
New Hampshire	20	2	18	4	14	19	2	16	3	13
New Jersey	15	2	13	3	10	14	2	12	1	11
New Mexico	14	2	13	3	10	13	3	10	3	7
New York	15	3	12	1	11	15	1	13	1	12
North Carolina	15	2	13	3	10	15	2	13	3	10
North Dakota	16	2	13	5	8	15	4	11	3	8
Ohio	12	3	9	2	7	15	4	11	2	8
Oklahoma	16	4	12	4	9	14	5	10	3	6
Oregon	15	3	11	5	7	15	2	13	5	8
Pennsylvania	16	2	13	3	10	17	2	14	4	10
Rhode Island	20	2	18	6	12	19	2	17	5	12
South Carolina	14	4	10	6	5	13	2	12	5	6
South Dakota	16	1	14	7	7	15	1	14	7	7
Tennessee	11	3	8	3	6	14	6	8	4	4
Texas	14	5	8	4	4	13	5	8	3	5
Utah	12	2	11	4	6	12	2	10	4	6
Vermont	16	3	13	4	9	17	2	14	3	11
Virginia	16	4	11	3	8	15	4	11	4	7
Washington	13	2	11	4	7	15	2	13	5	8
West Virginia	19	2	17	9	8	17	1	16	8	8
Wisconsin	14	2	12	2	10	15	2	12	3	9
Wyoming	15	1	14	3	11	15	2	13	4	9
Other jurisdictions										
District of Columbia	16	5	11	2	8	14	5	9	1	8
DoDEA ¹	10	1	9	2	7	11	1	10	3	7
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-22. Percentage of fourth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2009						2011					
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations		Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	
Nation (public)	13	2	11	3	8		13	2	11	3	9	
Alabama	10	1	9	6	4		10	1	9	5	4	
Alaska	17	1	16	4	12		16	2	14	3	11	
Arizona	13	1	12	4	8		12	1	11	2	8	
Arkansas	12	1	11	2	8		13	1	12	2	10	
California	10	2	7	3	5		10	1	8	2	6	
Colorado	11	1	10	1	9		11	1	10	1	9	
Connecticut	13	2	12	2	10		14	1	13	1	11	
Delaware	15	3	12	2	11		16	3	13	3	10	
Florida	17	2	15	3	12		16	1	14	3	12	
Georgia	11	1	9	3	7		12	1	10	3	8	
Hawaii	10	1	9	1	8		10	2	8	1	7	
Idaho	10	1	9	3	7		11	1	9	2	7	
Illinois	15	2	13	4	9		14	2	12	4	8	
Indiana	16	2	13	5	8		16	2	14	4	9	
Iowa	14	2	12	2	10		15	1	14	2	12	
Kansas	14	3	11	3	9		14	2	13	4	9	
Kentucky	15	3	12	5	7		15	3	12	4	8	
Louisiana	20	2	18	3	15		20	2	18	2	16	
Maine	18	1	17	3	14		17	2	16	2	14	
Maryland	14	4	9	2	7		14	5	8	2	7	
Massachusetts	19	5	14	2	12		18	3	15	1	14	
Michigan	14	2	11	4	8		13	2	11	3	8	
Minnesota	14	2	13	5	8		15	1	13	4	9	
Mississippi	10	1	9	3	6		9	1	9	4	5	
Missouri	14	3	12	4	8		13	2	11	3	8	
Montana	12	2	10	2	8		12	1	10	3	7	
Nebraska	18	2	16	7	9		17	1	15	5	10	
Nevada	12	2	10	3	6		11	2	9	3	6	
New Hampshire	18	2	16	3	14		17	2	15	1	14	
New Jersey	16	2	13	2	12		17	3	14	2	12	
New Mexico	13	2	11	2	8		13	2	11	2	9	
New York	16	1	15	1	14		16	1	15	1	14	
North Carolina	15	2	13	3	10		15	2	13	3	10	
North Dakota	16	4	12	4	8		15	3	11	3	8	
Ohio	14	3	11	2	9		14	2	12	2	10	
Oklahoma	15	4	11	4	7		15	8	8	3	5	
Oregon	16	2	13	5	9		15	2	13	4	9	
Pennsylvania	15	2	13	3	10		15	1	14	3	11	
Rhode Island	17	2	16	3	13		14	1	13	1	12	
South Carolina	14	2	13	5	8		14	1	12	4	8	
South Dakota	15	2	13	5	8		16	2	14	7	7	
Tennessee	14	3	10	3	7		14	3	10	3	7	
Texas	10	3	7	2	5		10	4	7	2	5	
Utah	12	2	10	3	7		13	2	11	4	7	
Vermont	19	2	16	3	13		17	1	16	2	14	
Virginia	14	2	12	3	9		13	2	11	3	8	
Washington	12	2	11	3	7		14	2	12	3	9	
West Virginia	17	2	16	7	9		18	1	16	7	9	
Wisconsin	15	2	13	2	11		14	2	13	2	10	
Wyoming	16	1	15	4	11		16	2	14	4	11	
Other jurisdictions												
District of Columbia	14	4	10	2	8		15	5	11	#	10	
DoDEA ¹	12	1	11	3	8		13	2	11	3	8	
Puerto Rico	—	—	—	—	—		24	#	24	1	23	

See notes at end of table.

Table A-22. Percentage of fourth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	1	12	2	10	14	1	13	3	11
Alabama	10	1	9	4	5	12	1	11	5	6
Alaska	16	1	15	2	13	15	1	14	2	12
Arizona	10	1	10	2	8	13	1	12	2	10
Arkansas	14	1	13	2	11	14	1	13	2	11
California	10	2	8	2	7	10	1	9	2	6
Colorado	10	1	9	2	8	11	1	10	2	8
Connecticut	14	1	13	1	12	13	1	12	2	10
Delaware	16	2	14	2	12	17	1	16	3	13
Florida	16	1	15	2	12	17	1	16	2	14
Georgia	12	1	11	2	9	14	1	13	2	10
Hawaii	10	1	9	1	8	10	1	9	2	7
Idaho	11	1	10	2	8	11	2	10	2	7
Illinois	14	1	13	2	11	13	1	13	3	9
Indiana	17	1	15	2	13	17	1	16	3	13
Iowa	13	1	13	2	11	13	1	13	1	11
Kansas	15	1	14	3	11	15	1	14	4	10
Kentucky	13	1	12	2	9	16	2	14	4	10
Louisiana	20	1	19	2	17	21	2	19	2	17
Maine	20	2	18	2	16	19	1	18	2	16
Maryland	14	1	13	1	12	13	1	12	1	11
Massachusetts	19	2	17	1	16	20	2	18	2	16
Michigan	13	2	11	3	9	14	2	12	3	9
Minnesota	14	1	13	5	8	14	2	13	5	8
Mississippi	10	1	10	3	6	12	1	12	4	7
Missouri	14	1	13	3	9	14	1	13	4	9
Montana	12	2	10	2	8	12	1	11	3	8
Nebraska	17	1	15	4	11	17	1	16	4	11
Nevada	13	1	12	3	9	12	2	9	2	7
New Hampshire	16	1	15	1	14	18	1	17	1	16
New Jersey	16	1	15	1	14	18	1	17	2	15
New Mexico	14	1	13	2	10	15	2	13	2	11
New York	17	1	16	1	15	18	1	17	1	17
North Carolina	15	1	14	2	12	13	1	12	2	11
North Dakota	14	2	12	3	9	13	2	12	3	9
Ohio	15	1	14	2	11	16	2	14	1	13
Oklahoma	17	2	16	3	12	18	2	16	4	12
Oregon	16	2	14	4	10	14	2	12	3	9
Pennsylvania	16	1	15	3	12	19	1	17	4	13
Rhode Island	14	1	13	1	12	14	1	13	1	11
South Carolina	14	1	13	3	10	14	1	13	4	10
South Dakota	16	1	15	6	9	16	1	15	6	10
Tennessee	14	1	13	2	11	15	1	14	3	11
Texas	12	1	10	1	9	14	2	12	2	10
Utah	13	1	12	3	9	12	1	11	4	7
Vermont	17	1	16	1	15	18	1	16	2	15
Virginia	14	1	13	3	10	13	1	12	2	10
Washington	14	2	12	3	9	13	1	12	3	9
West Virginia	18	2	17	7	10	20	1	19	8	11
Wisconsin	15	2	13	2	11	13	1	12	3	9
Wyoming	15	1	15	3	11	15	1	15	3	12
Other jurisdictions										
District of Columbia	15	1	14	1	14	14	1	13	1	12
DoDEA ¹	14	1	13	3	10	14	1	14	3	11
Puerto Rico	28	#	28	1	27	30	#	30	1	29

See notes at end of table.

Table A-22. Percentage of fourth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2017					2019				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	15	2	13	4	9	16	2	14	3	11
Alabama	12	1	11	6	6	15	1	14	6	8
Alaska	15	1	14	5	9	16	#	16	4	12
Arizona	11	1	10	2	8	13	1	13	4	9
Arkansas	16	1	14	4	10	18	1	17	3	14
California	11	2	9	4	5	13	2	11	5	6
Colorado	12	1	11	3	8	13	1	12	4	8
Connecticut	15	1	14	3	10	15	1	14	3	12
Delaware	18	1	17	5	12	18	1	17	3	14
Florida	17	2	15	2	13	21	2	19	2	17
Georgia	14	1	12	3	10	15	1	13	2	11
Hawaii	10	1	8	3	5	11	1	10	4	6
Idaho	11	1	10	3	7	12	1	11	3	8
Illinois	15	1	14	2	12	15	1	14	3	11
Indiana	17	1	15	3	12	18	1	16	3	13
Iowa	15	1	14	2	12	14	1	13	1	11
Kansas	15	1	13	6	8	15	1	14	4	10
Kentucky	16	1	14	5	10	17	1	15	4	11
Louisiana	18	2	17	2	14	19	2	17	2	15
Maine	20	1	19	5	14	21	1	20	2	18
Maryland	13	1	12	2	10	14	1	13	2	12
Massachusetts	20	2	18	3	15	21	2	19	2	17
Michigan	12	2	10	5	5	13	2	11	3	8
Minnesota	14	1	12	7	5	15	1	13	6	7
Mississippi	14	1	13	5	8	14	1	13	4	10
Missouri	15	1	14	6	9	15	1	14	4	10
Montana	13	1	12	5	7	15	1	14	5	9
Nebraska	17	1	16	6	10	17	1	16	5	12
Nevada	12	1	11	6	5	12	1	11	5	5
New Hampshire	18	1	17	4	13	19	1	18	3	14
New Jersey	17	1	16	3	13	17	1	16	1	15
New Mexico	16	1	14	4	10	17	1	15	4	11
New York	17	1	16	2	14	18	2	16	2	14
North Carolina	15	1	14	4	10	14	1	13	2	10
North Dakota	14	1	13	5	7	15	1	13	4	10
Ohio	16	2	14	2	12	18	2	15	2	13
Oklahoma	18	2	16	5	12	19	2	17	5	12
Oregon	14	1	13	6	7	16	1	14	7	7
Pennsylvania	17	2	15	4	11	19	2	16	4	12
Rhode Island	14	1	13	1	12	16	1	15	1	14
South Carolina	15	1	14	8	6	15	1	14	5	10
South Dakota	17	1	15	10	5	17	1	16	8	8
Tennessee	13	2	12	4	7	15	1	13	5	9
Texas	15	2	12	3	10	15	2	13	2	12
Utah	14	1	12	6	6	14	1	13	6	7
Vermont	18	1	17	4	13	20	1	19	5	15
Virginia	13	1	12	3	8	15	1	14	3	11
Washington	13	2	11	5	7	14	2	12	4	8
West Virginia	21	1	20	11	9	21	1	20	9	11
Wisconsin	15	1	13	4	9	14	1	13	4	9
Wyoming	15	1	14	4	10	17	1	16	3	13
Other jurisdictions										
District of Columbia	16	1	15	2	13	17	1	16	1	16
DoDEA ¹	13	1	12	4	9	14	1	13	3	10
Puerto Rico	31	#	31	2	30	32	#	32	2	31

See notes at end of table.

Table A-22. Percentage of fourth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	16	1	15	4	11
Alabama	13	1	12	5	8
Alaska	17	1	17	4	13
Arizona	14	1	13	4	9
Arkansas	20	1	19	2	17
California	12	2	11	5	6
Colorado	14	1	13	4	9
Connecticut	17	1	15	3	12
Delaware	19	1	18	5	13
Florida	19	2	18	3	15
Georgia	15	1	14	3	11
Hawaii	11	1	10	5	5
Idaho	15	1	14	5	9
Illinois	15	1	14	3	11
Indiana	19	#	18	6	13
Iowa	15	1	14	3	12
Kansas	17	1	16	8	9
Kentucky	17	2	16	4	11
Louisiana	19	2	18	2	16
Maine	21	1	20	4	16
Maryland	14	1	13	2	11
Massachusetts	20	1	19	2	17
Michigan	14	3	12	4	7
Minnesota	18	2	15	7	8
Mississippi	16	1	15	4	12
Missouri	16	1	15	4	11
Montana	16	1	15	5	10
Nebraska	18	1	16	5	11
Nevada	13	2	11	7	4
New Hampshire	20	1	19	5	14
New Jersey	18	1	16	2	14
New Mexico	17	1	16	4	11
New York	19	1	18	2	16
North Carolina	16	1	14	4	11
North Dakota	15	1	14	3	11
Ohio	16	1	15	1	14
Oklahoma	20	2	18	6	12
Oregon	16	1	15	6	8
Pennsylvania	19	2	18	5	13
Rhode Island	15	1	14	1	13
South Carolina	16	1	15	5	10
South Dakota	18	1	17	8	8
Tennessee	15	2	13	4	9
Texas	19	2	16	3	13
Utah	16	1	15	6	9
Vermont	21	1	19	4	15
Virginia	15	2	13	4	8
Washington	15	2	13	6	8
West Virginia	22	2	21	10	11
Wisconsin	15	1	14	4	10
Wyoming	18	1	17	4	13
Other jurisdictions					
District of Columbia	17	1	16	1	15
DoDEA ¹	16	1	15	3	12
Puerto Rico	33	#	33	2	31

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–22 Mathematics Assessments.

Table A-23. Percentage of eighth-grade public school students identified as students with disabilities excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: Various years, 1990–2000

State/jurisdiction	1990			1992			1996			2000		
	Identified	Excluded	Assessed									
Nation (public)	—	—	—	8	5	3	9	4	5	12	6	6
Alabama	9	5	4	10	5	5	13	7	6	14	5	9
Alaska	—	—	—	—	—	—	10	5	6	—	—	—
Arizona	7	3	3	6	4	2	9	5	4	11	7	4
Arkansas	10	7	3	11	6	5	11	7	4	12	8	4
California	7	3	4	8	4	4	8	5	4	10	6	5
Colorado	8	4	5	8	4	5	11	4	7	—	—	—
Connecticut	9	5	4	12	5	6	13	7	6	14	9	5
Delaware	9	4	5	9	4	5	12	8	4	—	—	—
Florida	8	5	4	9	5	4	12	7	5	—	—	—
Georgia	6	3	3	7	4	3	9	6	3	10	7	3
Hawaii	7	3	3	9	3	5	9	4	5	15	6	9
Idaho	6	2	4	7	3	4	—	—	—	10	5	6
Illinois	8	4	4	—	—	—	—	—	—	11	6	5
Indiana	7	5	2	8	4	4	12	5	6	11	7	4
Iowa	9	4	6	10	4	6	12	5	7	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	10	5	5
Kentucky	7	5	3	9	5	4	9	4	5	13	9	4
Louisiana	6	4	2	7	4	3	9	6	3	13	6	7
Maine	—	—	—	11	4	6	11	5	6	14	9	5
Maryland	9	4	5	9	4	5	11	6	5	12	10	3
Massachusetts	—	—	—	14	6	8	15	7	9	16	10	6
Michigan	8	4	4	9	6	3	8	5	3	10	6	4
Minnesota	8	3	6	7	3	4	10	3	7	13	4	8
Mississippi	—	—	—	10	7	3	11	7	4	10	7	3
Missouri	—	—	—	11	4	6	11	6	4	14	8	6
Montana	6	2	4	—	—	—	9	3	6	11	5	5
Nebraska	8	3	5	9	4	6	11	4	7	11	3	8
Nevada	—	—	—	—	—	—	9	5	4	12	8	3
New Hampshire	12	4	7	12	5	7	14	4	11	—	—	—
New Jersey	10	5	4	12	6	6	10	5	5	—	—	—
New Mexico	8	6	3	10	4	6	13	5	9	17	10	7
New York	8	4	4	10	6	4	10	5	4	12	10	1
North Carolina	9	3	6	12	3	9	8	4	5	14	13	2
North Dakota	7	2	5	7	2	5	9	3	6	11	4	7
Ohio	8	5	3	9	6	4	—	—	—	11	9	3
Oklahoma	7	5	2	9	6	3	—	—	—	13	8	5
Oregon	7	2	5	—	—	—	10	3	7	13	4	9
Pennsylvania	10	5	5	8	4	4	—	—	—	—	—	—
Rhode Island	11	5	6	10	4	7	13	5	7	16	9	7
South Carolina	—	—	—	10	6	4	10	6	4	13	7	6
Tennessee	—	—	—	10	5	5	11	4	7	12	4	8
Texas	8	4	3	9	5	4	11	6	5	14	8	6
Utah	—	—	—	9	4	5	10	5	5	10	5	6
Vermont	—	—	—	—	—	—	12	4	8	16	9	7
Virginia	8	4	4	10	5	5	12	7	5	14	10	4
Washington	—	—	—	—	—	—	11	5	6	—	—	—
West Virginia	9	5	4	10	6	4	13	8	4	14	11	3
Wisconsin	7	4	3	9	4	5	11	7	4	16	10	6
Wyoming	8	3	4	9	4	5	10	2	8	12	4	8
Other jurisdictions												
District of Columbia	5	4	1	9	8	1	10	8	2	11	7	4
DoDEA ¹	—	—	—	—	—	—	7	2	5	6	4	3

— Not available.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1990 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2000 Mathematics Assessments.

Table A-24. Percentage of eighth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	11	3	7	5	2	14	3	11	5	6
Alabama	14	6	7	7	1	13	2	11	8	3
Alaska	—	—	—	—	—	15	1	14	6	8
Arizona	11	2	9	6	2	11	3	9	4	4
Arkansas	13	2	11	7	4	15	1	13	6	7
California	10	3	7	5	3	11	1	9	7	2
Colorado	—	—	—	—	—	12	1	10	4	7
Connecticut	14	5	9	6	3	14	3	11	4	7
Delaware	—	—	—	—	—	16	8	8	3	5
Florida	—	—	—	—	—	14	2	12	3	9
Georgia	9	4	6	3	3	11	2	10	4	6
Hawaii	15	4	11	10	2	16	3	13	5	8
Idaho	11	2	9	6	3	10	1	10	6	4
Illinois	11	3	8	5	3	15	4	12	3	8
Indiana	11	3	8	5	3	14	2	11	5	6
Iowa	—	—	—	—	—	16	2	14	5	9
Kansas	12	3	9	6	3	13	2	11	3	8
Kentucky	12	4	8	4	4	13	4	9	4	5
Louisiana	12	2	10	4	6	16	4	11	2	9
Maine	14	3	12	7	4	16	4	12	5	7
Maryland	12	2	10	7	4	14	3	10	6	5
Massachusetts	16	2	15	7	8	16	2	14	4	10
Michigan	10	4	7	5	2	13	4	8	3	5
Minnesota	12	1	11	9	2	13	2	11	6	5
Mississippi	10	5	5	4	1	9	5	4	2	2
Missouri	14	3	12	5	7	15	4	12	3	9
Montana	12	2	9	6	3	12	2	10	5	6
Nebraska	11	3	8	6	2	14	3	11	6	5
Nevada	12	3	9	5	4	12	2	10	5	5
New Hampshire	—	—	—	—	—	19	3	15	6	9
New Jersey	—	—	—	—	—	15	1	14	2	12
New Mexico	17	7	10	8	3	20	2	18	8	10
New York	12	3	9	2	6	16	4	12	2	10
North Carolina	14	4	10	3	7	16	3	12	2	10
North Dakota	11	2	9	7	2	14	1	13	6	7
Ohio	11	4	7	4	3	13	5	8	3	5
Oklahoma	13	4	9	7	3	16	2	14	8	6
Oregon	13	2	11	6	5	14	3	12	7	4
Pennsylvania	—	—	—	—	—	14	1	13	2	10
Rhode Island	16	3	14	10	4	20	3	17	5	12
South Carolina	13	4	9	7	2	15	7	8	4	4
South Dakota	—	—	—	—	—	11	2	9	4	5
Tennessee	11	2	9	9	1	14	3	12	11	1
Texas	14	7	7	5	1	15	6	9	8	2
Utah	10	2	8	6	2	11	2	9	5	4
Vermont	16	3	13	9	4	17	3	15	7	7
Virginia	13	5	7	4	4	15	6	9	3	6
Washington	—	—	—	—	—	13	2	11	7	4
West Virginia	14	3	12	4	8	16	3	13	5	9
Wisconsin	15	4	12	6	6	15	3	13	2	10
Wyoming	12	1	11	8	3	15	1	14	4	9
Other jurisdictions										
District of Columbia	11	5	7	2	4	16	5	11	3	8
DoDEA ¹	6	1	5	4	2	8	1	7	1	5
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-24. Percentage of eighth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	13	3	10	3	7	13	4	9	2	6
Alabama	13	1	12	9	3	12	3	9	7	2
Alaska	14	2	12	3	10	12	4	8	3	6
Arizona	10	3	7	3	4	11	3	8	3	5
Arkansas	14	3	11	5	7	12	2	10	2	8
California	9	2	8	4	3	9	2	7	4	3
Colorado	10	2	9	2	6	10	2	9	1	7
Connecticut	13	2	11	4	7	13	1	12	3	9
Delaware	15	10	5	2	3	14	6	8	2	6
Florida	16	2	14	3	11	13	2	11	1	10
Georgia	12	2	9	3	6	9	5	5	2	3
Hawaii	14	2	12	5	7	13	1	12	4	7
Idaho	12	2	10	4	6	10	1	8	3	5
Illinois	15	3	13	2	10	14	5	9	2	8
Indiana	15	4	11	2	9	15	5	10	2	8
Iowa	15	2	13	3	10	15	2	13	2	11
Kansas	14	3	10	2	8	12	4	9	2	7
Kentucky	11	3	8	2	6	13	6	7	2	5
Louisiana	14	4	10	1	9	12	3	9	1	8
Maine	18	4	14	5	8	17	5	12	3	9
Maryland	11	4	7	3	4	11	7	4	1	3
Massachusetts	17	6	12	2	9	17	9	8	2	6
Michigan	14	4	10	2	7	14	4	9	2	8
Minnesota	12	2	10	4	6	12	2	10	3	7
Mississippi	9	3	6	3	3	11	2	8	2	6
Missouri	14	4	10	2	8	13	5	9	2	6
Montana	13	2	11	3	8	13	3	10	2	8
Nebraska	13	1	12	4	8	13	2	11	3	7
Nevada	11	2	9	4	5	12	3	9	4	5
New Hampshire	18	2	16	6	10	19	3	16	5	12
New Jersey	16	3	14	2	12	14	3	12	1	11
New Mexico	16	2	14	4	9	12	2	10	4	7
New York	15	3	12	1	11	14	3	11	1	11
North Carolina	14	2	12	2	11	13	2	11	1	10
North Dakota	16	4	12	4	8	14	6	8	2	6
Ohio	14	5	8	2	7	15	7	8	1	7
Oklahoma	16	4	12	5	7	14	8	6	2	4
Oregon	13	2	10	4	6	12	3	9	4	5
Pennsylvania	15	3	12	3	10	15	4	12	3	9
Rhode Island	17	3	15	6	9	17	2	15	3	12
South Carolina	14	6	8	4	4	13	5	8	3	5
South Dakota	12	2	10	3	6	11	2	9	2	6
Tennessee	14	5	10	5	5	12	6	5	3	3
Texas	13	5	8	5	3	11	5	6	3	3
Utah	11	2	9	3	6	10	2	8	2	6
Vermont	18	4	14	6	8	19	4	15	5	10
Virginia	15	4	10	3	7	14	6	8	2	6
Washington	11	2	9	3	7	11	3	8	2	6
West Virginia	17	3	14	6	8	17	2	15	5	10
Wisconsin	14	3	11	2	9	14	4	10	2	9
Wyoming	14	2	13	3	10	13	2	11	3	9
Other jurisdictions										
District of Columbia	17	5	12	2	10	17	9	8	2	6
DoDEA ¹	9	1	8	2	5	7	1	7	1	6
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-24. Percentage of eighth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2009						2011					
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations		Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	
Nation (public)	13	3	10	2	8		13	2	10	2	9	
Alabama	10	1	9	6	3		10	1	9	6	3	
Alaska	13	3	10	1	9		13	3	10	1	9	
Arizona	12	2	10	2	7		11	1	9	1	8	
Arkansas	12	1	11	2	9		11	1	10	1	9	
California	9	1	8	2	5		10	1	9	3	6	
Colorado	11	2	9	1	7		10	1	9	1	8	
Connecticut	13	2	11	2	9		12	1	11	1	10	
Delaware	15	2	13	1	12		14	3	12	2	10	
Florida	15	2	13	1	12		14	2	13	1	12	
Georgia	11	3	9	1	8		10	3	8	1	6	
Hawaii	12	1	11	3	8		11	1	10	2	8	
Idaho	9	1	8	3	5		8	1	7	1	6	
Illinois	14	3	11	2	9		14	2	12	1	10	
Indiana	14	4	10	2	8		14	2	12	1	11	
Iowa	14	2	12	2	10		15	1	13	1	12	
Kansas	12	3	9	1	8		12	1	10	2	8	
Kentucky	12	4	7	1	6		12	3	8	1	7	
Louisiana	15	2	13	2	12		14	1	13	1	12	
Maine	17	2	15	3	12		18	1	17	3	14	
Maryland	12	7	5	1	4		11	6	5	1	5	
Massachusetts	19	5	13	3	10		19	3	15	1	14	
Michigan	13	3	10	2	8		12	3	9	2	7	
Minnesota	12	2	10	3	7		13	2	11	3	8	
Mississippi	9	2	8	1	6		8	1	7	1	6	
Missouri	13	3	10	2	7		13	1	12	2	10	
Montana	12	3	9	2	8		12	2	11	2	9	
Nebraska	14	3	11	3	8		14	3	11	2	8	
Nevada	11	2	8	2	6		10	3	7	2	5	
New Hampshire	20	3	17	5	12		18	2	16	3	13	
New Jersey	16	2	14	1	13		17	4	13	1	12	
New Mexico	13	3	10	3	8		12	2	11	3	8	
New York	16	2	14	1	13		16	1	15	#	14	
North Carolina	12	1	11	1	10		14	2	12	1	10	
North Dakota	15	5	10	4	6		14	4	10	2	8	
Ohio	15	5	10	1	9		15	5	10	1	9	
Oklahoma	15	6	9	2	7		16	9	6	3	3	
Oregon	13	3	10	4	6		13	1	12	3	9	
Pennsylvania	17	3	14	2	12		16	2	13	2	11	
Rhode Island	18	2	16	3	13		16	1	15	3	12	
South Carolina	14	4	9	4	5		11	4	7	2	6	
South Dakota	10	2	9	2	6		11	1	9	3	7	
Tennessee	11	4	7	1	6		12	4	8	1	7	
Texas	12	5	7	2	5		11	5	6	2	4	
Utah	10	3	7	2	6		10	3	8	1	7	
Vermont	20	2	18	5	13		18	1	17	3	14	
Virginia	14	3	10	3	7		13	2	11	3	8	
Washington	11	2	9	2	7		12	1	10	2	9	
West Virginia	15	2	13	4	10		13	2	12	3	9	
Wisconsin	14	2	12	2	10		14	2	12	1	11	
Wyoming	14	2	12	2	10		13	1	12	1	10	
Other jurisdictions												
District of Columbia	17	6	11	1	10		17	4	13	1	12	
DoDEA ¹	8	1	7	2	5		10	2	8	1	7	
Puerto Rico	—	—	—	—	—		19	1	18	#	17	

See notes at end of table.

Table A-24. Percentage of eighth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2013						2015					
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations		Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	
Nation (public)	13	1	12	1	10		13	1	12	1	11	
Alabama	10	1	9	4	5		10	1	9	4	6	
Alaska	14	1	13	1	12		14	2	13	1	12	
Arizona	12	1	11	1	10		11	1	10	1	9	
Arkansas	13	2	11	1	11		12	2	11	1	9	
California	10	1	8	2	7		11	1	10	3	7	
Colorado	11	1	10	1	9		11	1	10	1	9	
Connecticut	15	2	13	1	12		16	1	15	2	13	
Delaware	15	1	14	1	14		17	1	16	2	14	
Florida	13	1	12	1	11		14	1	13	1	12	
Georgia	12	1	10	2	9		12	1	11	1	10	
Hawaii	12	1	11	2	8		11	1	10	3	7	
Idaho	9	1	8	1	7		11	1	10	1	9	
Illinois	13	1	13	1	12		13	#	13	1	11	
Indiana	15	2	13	1	12		14	1	13	1	12	
Iowa	13	1	12	1	12		13	1	12	1	11	
Kansas	13	2	11	1	10		12	1	11	2	9	
Kentucky	11	2	10	#	9		13	1	11	1	11	
Louisiana	15	1	14	#	13		18	1	17	1	16	
Maine	18	1	17	2	15		18	1	17	2	16	
Maryland	13	1	12	#	11		15	1	13	1	12	
Massachusetts	17	1	16	1	15		19	2	18	2	16	
Michigan	13	2	11	2	9		13	2	11	1	10	
Minnesota	13	1	11	4	8		13	2	11	4	8	
Mississippi	8	1	8	1	6		10	1	10	1	8	
Missouri	12	1	11	1	10		13	1	12	1	10	
Montana	12	1	10	1	9		12	1	11	3	8	
Nebraska	14	2	12	2	11		14	2	13	2	11	
Nevada	11	1	10	1	9		10	1	9	2	8	
New Hampshire	18	1	17	2	15		18	1	16	2	14	
New Jersey	17	1	15	#	15		18	1	17	1	16	
New Mexico	13	2	12	3	9		14	1	12	3	9	
New York	16	2	15	#	15		17	1	17	1	16	
North Carolina	14	1	13	1	12		15	1	14	1	12	
North Dakota	14	3	11	1	10		14	2	12	2	11	
Ohio	15	1	13	1	13		16	2	14	#	13	
Oklahoma	16	1	14	2	13		16	1	15	2	14	
Oregon	14	1	13	3	10		15	2	13	3	10	
Pennsylvania	16	1	15	2	13		17	2	15	1	14	
Rhode Island	15	1	14	1	13		16	1	14	2	13	
South Carolina	12	1	11	2	9		12	1	11	2	10	
South Dakota	11	1	10	2	8		12	1	10	3	7	
Tennessee	11	2	10	1	9		14	2	13	1	12	
Texas	11	1	10	1	9		12	2	10	1	9	
Utah	11	1	10	1	9		11	1	10	1	8	
Vermont	17	1	17	2	15		19	1	18	1	16	
Virginia	13	1	12	2	10		14	2	12	2	10	
Washington	12	2	10	1	9		12	1	12	1	10	
West Virginia	13	2	11	2	9		14	2	13	2	11	
Wisconsin	14	1	13	1	12		14	1	13	1	11	
Wyoming	14	1	13	1	11		14	1	13	1	12	
Other jurisdictions												
District of Columbia	18	#	17	#	17		19	1	18	#	18	
DoDEA ¹	11	1	10	1	8		10	1	10	1	8	
Puerto Rico	23	#	23	#	23		24	#	24	1	23	

See notes at end of table.

Table A-24. Percentage of eighth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2017					2019				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	1	13	3	10	15	1	13	2	11
Alabama	11	1	10	5	4	12	1	11	5	6
Alaska	14	1	12	2	10	14	1	13	2	11
Arizona	10	1	9	2	7	13	1	12	3	9
Arkansas	14	2	12	2	10	15	2	14	2	12
California	12	1	11	4	6	12	1	11	3	9
Colorado	12	1	10	3	8	12	1	11	2	9
Connecticut	16	1	14	3	12	18	1	16	4	12
Delaware	17	2	15	3	12	17	1	16	3	12
Florida	15	2	13	1	12	17	1	16	1	14
Georgia	13	1	11	2	10	15	2	13	1	12
Hawaii	11	2	9	5	4	11	1	9	5	5
Idaho	10	1	9	2	7	12	1	11	2	9
Illinois	14	1	13	1	12	14	1	14	1	12
Indiana	15	1	13	2	12	16	1	15	1	14
Iowa	13	1	12	1	11	14	1	13	1	12
Kansas	13	1	12	5	7	13	1	12	3	9
Kentucky	13	1	12	1	10	14	1	12	1	12
Louisiana	19	2	16	1	15	17	2	15	1	15
Maine	19	1	18	3	14	19	1	18	2	16
Maryland	13	1	12	1	11	13	1	12	#	12
Massachusetts	19	2	17	3	14	19	1	17	3	14
Michigan	13	2	11	2	9	13	2	11	2	9
Minnesota	13	2	11	6	5	15	2	13	6	7
Mississippi	10	1	10	2	8	12	1	11	2	9
Missouri	14	1	12	3	9	13	1	13	3	10
Montana	13	1	12	4	8	14	1	13	3	10
Nebraska	15	1	14	2	11	15	1	14	3	11
Nevada	11	1	9	4	5	12	1	11	5	6
New Hampshire	17	1	16	5	11	19	1	18	5	13
New Jersey	17	1	16	1	15	16	1	16	1	14
New Mexico	15	2	14	3	11	17	1	16	4	12
New York	17	1	17	1	15	19	1	18	1	17
North Carolina	14	2	13	4	9	14	1	13	2	10
North Dakota	14	1	13	4	8	13	1	12	3	10
Ohio	16	2	14	1	13	17	2	16	1	15
Oklahoma	17	1	15	3	13	15	2	13	3	10
Oregon	14	1	13	5	8	15	1	14	4	9
Pennsylvania	17	2	15	3	11	19	1	17	4	14
Rhode Island	16	2	15	3	12	15	1	14	2	12
South Carolina	13	1	12	7	6	14	1	13	4	9
South Dakota	13	2	11	7	4	13	1	12	6	6
Tennessee	14	2	12	2	10	12	1	11	2	9
Texas	14	2	12	1	10	14	1	13	2	11
Utah	11	1	10	2	8	14	1	13	3	10
Vermont	20	1	19	4	15	20	1	19	4	15
Virginia	13	1	12	4	8	15	2	13	2	10
Washington	14	1	12	3	9	13	1	12	3	9
West Virginia	15	2	13	5	8	17	1	15	5	11
Wisconsin	13	1	12	2	9	12	1	11	1	10
Wyoming	14	1	13	2	11	15	2	13	1	12
Other jurisdictions										
District of Columbia	18	1	17	2	15	20	1	19	1	17
DoDEA ¹	11	1	11	2	8	12	1	11	1	10
Puerto Rico	28	#	28	2	27	29	#	29	1	28

See notes at end of table.

Table A-24. Percentage of eighth-grade public school students identified as students with disabilities and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	15	1	14	2	12
Alabama	13	1	12	4	8
Alaska	15	1	14	2	12
Arizona	12	1	11	3	8
Arkansas	17	1	17	1	16
California	12	1	11	4	7
Colorado	13	1	12	3	10
Connecticut	19	1	18	3	15
Delaware	19	1	18	2	16
Florida	20	2	18	1	17
Georgia	17	1	15	1	14
Hawaii	12	1	10	7	4
Idaho	13	1	12	2	10
Illinois	15	1	15	2	13
Indiana	15	#	15	1	14
Iowa	16	1	14	1	13
Kansas	14	1	13	3	10
Kentucky	16	2	14	1	13
Louisiana	20	2	18	1	18
Maine	22	1	22	3	18
Maryland	15	1	14	#	13
Massachusetts	20	1	19	3	16
Michigan	14	2	12	3	10
Minnesota	15	2	13	6	7
Mississippi	13	1	12	1	11
Missouri	14	1	14	4	10
Montana	15	1	14	2	12
Nebraska	15	1	14	2	12
Nevada	10	1	10	4	6
New Hampshire	19	1	18	6	12
New Jersey	19	1	18	1	17
New Mexico	18	1	16	5	11
New York	18	1	17	1	16
North Carolina	13	1	13	2	11
North Dakota	15	1	14	3	11
Ohio	16	1	16	1	15
Oklahoma	18	1	17	4	13
Oregon	15	1	14	4	10
Pennsylvania	19	1	18	3	15
Rhode Island	16	1	15	2	13
South Carolina	14	1	13	4	9
South Dakota	14	1	12	6	6
Tennessee	13	2	12	2	10
Texas	16	1	14	2	12
Utah	13	1	12	2	10
Vermont	22	2	20	4	16
Virginia	15	1	13	3	10
Washington	13	1	12	3	8
West Virginia	18	1	17	5	12
Wisconsin	13	1	12	2	10
Wyoming	14	1	13	2	11
Other jurisdictions					
District of Columbia	21	2	19	#	18
DoDEA ¹	13	1	12	1	11
Puerto Rico	30	#	30	#	30

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–22 Mathematics Assessments.

Table A-25. Percentage of fourth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: 1992, 1996, and 2000

State/jurisdiction	1992			1996			2000		
	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation (public)	3	2	1	4	2	2	6	2	3
Alabama	#	#	#	#	#	#	1	#	#
Alaska	—	—	—	8	1	6	—	—	—
Arizona	8	2	6	12	7	6	16	7	9
Arkansas	1	#	#	#	#	#	1	#	1
California	22	10	12	26	12	14	27	7	20
Colorado	2	1	1	4	2	2	—	—	—
Connecticut	4	2	1	3	2	1	4	2	1
Delaware	1	1	#	2	1	1	—	—	—
Florida	4	2	2	6	3	3	—	—	—
Georgia	1	1	#	2	2	1	2	1	1
Hawaii	4	2	3	5	1	4	7	3	4
Idaho	2	1	1	—	—	—	5	2	4
Illinois	—	—	—	—	—	—	7	4	2
Indiana	#	#	#	#	#	#	1	1	#
Iowa	1	#	1	2	1	1	1	1	#
Kansas	—	—	—	—	—	—	5	2	3
Kentucky	#	#	#	#	#	#	#	#	#
Louisiana	1	#	1	1	1	#	1	1	1
Maine	#	#	#	#	#	#	1	#	#
Maryland	1	1	1	1	1	#	2	2	#
Massachusetts	3	1	2	4	2	1	6	3	3
Michigan	1	1	#	2	1	1	2	2	1
Minnesota	2	#	2	3	1	2	5	2	3
Mississippi	#	#	#	#	#	#	#	#	#
Missouri	#	#	#	1	#	#	1	#	#
Montana	—	—	—	#	#	#	2	#	2
Nebraska	1	#	1	2	1	1	4	3	1
Nevada	—	—	—	8	4	4	11	5	6
New Hampshire	#	#	#	—	—	—	—	—	—
New Jersey	4	2	1	2	1	1	—	—	—
New Mexico	4	1	2	10	5	5	20	6	14
New York	5	2	3	6	3	3	6	4	3
North Carolina	1	#	#	2	1	1	3	2	1
North Dakota	1	#	#	#	#	#	1	#	#
Ohio	1	#	1	—	—	—	1	#	#
Oklahoma	2	#	1	—	—	—	5	2	4
Oregon	—	—	—	6	3	3	6	2	3
Pennsylvania	1	1	#	1	1	#	—	—	—
Rhode Island	6	3	3	5	2	4	7	3	4
South Carolina	#	#	#	#	#	#	1	1	#
Tennessee	#	#	#	1	1	#	1	#	#
Texas	9	4	5	13	5	9	13	7	5
Utah	1	1	#	2	1	1	6	3	3
Vermont	—	—	—	1	#	#	2	1	1
Virginia	1	1	1	2	1	1	4	2	2
Washington	—	—	—	3	1	2	—	—	—
West Virginia	#	#	#	#	#	#	#	#	#
Wisconsin	1	1	1	2	1	1	5	3	3
Wyoming	1	#	1	1	#	#	2	1	2
Other jurisdictions									
District of Columbia	4	2	1	6	4	1	6	3	4
DoDEA ¹	—	—	—	2	1	1	3	1	2

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1992 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, and 2000 Mathematics Assessments.

Table A-26. Percentage of fourth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	7	1	6	5	1	11	1	9	7	2
Alabama	#	#	#	#	#	1	#	1	1	#
Alaska	—	—	—	—	—	18	#	18	15	3
Arizona	16	3	13	8	5	19	2	17	15	2
Arkansas	1	#	1	1	#	4	1	3	2	#
California	27	3	24	16	7	33	2	30	27	3
Colorado	—	—	—	—	—	9	1	9	4	4
Connecticut	3	1	2	1	1	4	1	3	1	2
Delaware	—	—	—	—	—	3	1	2	1	1
Florida	—	—	—	—	—	11	2	9	5	4
Georgia	2	1	1	1	#	4	1	4	3	1
Hawaii	7	3	4	4	#	7	2	5	3	2
Idaho	5	2	4	3	1	7	1	6	5	2
Illinois	7	2	5	2	3	9	2	7	4	3
Indiana	1	1	1	#	1	3	#	2	2	1
Iowa	2	1	1	1	#	4	1	3	2	1
Kansas	5	#	5	4	1	3	#	3	1	1
Kentucky	1	#	#	#	#	2	1	1	1	#
Louisiana	1	#	#	#	#	2	#	2	#	1
Maine	1	#	1	1	#	1	1	1	1	#
Maryland	2	1	1	1	#	4	2	2	2	1
Massachusetts	6	2	4	2	2	5	1	4	2	2
Michigan	1	1	#	#	#	5	1	4	3	1
Minnesota	5	1	4	2	3	6	1	5	3	2
Mississippi	#	#	#	#	#	1	1	#	#	#
Missouri	1	1	1	1	#	2	1	2	#	1
Montana	#	#	#	#	#	4	#	4	3	1
Nebraska	3	1	2	2	#	5	1	4	3	1
Nevada	11	4	7	6	1	17	2	14	11	4
New Hampshire	—	—	—	—	—	3	1	2	1	1
New Jersey	—	—	—	—	—	4	1	3	1	3
New Mexico	20	2	18	12	6	29	2	27	18	9
New York	6	3	3	1	2	8	3	4	2	3
North Carolina	3	1	2	1	1	5	1	4	2	2
North Dakota	1	#	1	1	#	4	#	4	3	1
Ohio	#	#	#	#	#	2	1	1	#	1
Oklahoma	5	1	5	3	1	7	1	6	5	1
Oregon	6	1	4	2	2	12	1	11	6	5
Pennsylvania	—	—	—	—	—	3	1	2	1	1
Rhode Island	7	1	6	4	2	10	2	7	4	3
South Carolina	1	1	#	#	#	2	#	2	1	#
South Dakota	—	—	—	—	—	4	#	4	2	2
Tennessee	1	1	1	1	#	1	#	1	1	#
Texas	13	2	11	8	3	16	2	14	10	4
Utah	6	1	5	3	2	12	1	10	8	3
Vermont	#	#	#	#	#	2	#	2	1	1
Virginia	4	2	2	1	1	8	2	6	2	3
Washington	—	—	—	—	—	7	1	6	4	2
West Virginia	#	#	#	#	#	#	#	#	#	#
Wisconsin	5	1	4	2	3	7	1	6	2	3
Wyoming	2	#	2	2	#	4	#	4	3	1
Other jurisdictions										
District of Columbia	6	2	4	2	2	7	1	5	2	3
DoDEA ¹	3	1	2	2	#	6	1	5	4	2
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-26. Percentage of fourth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	10	1	9	7	3	11	1	10	7	3
Alabama	2	#	2	1	#	2	#	2	2	#
Alaska	19	1	19	11	7	16	1	15	9	6
Arizona	20	2	18	14	5	16	2	14	11	3
Arkansas	4	2	3	2	1	7	1	6	2	5
California	33	3	30	28	2	34	1	33	30	3
Colorado	11	1	11	4	7	15	#	14	7	7
Connecticut	5	1	4	2	2	7	#	7	2	5
Delaware	5	1	3	2	1	5	1	4	2	2
Florida	8	1	6	1	5	8	2	7	1	5
Georgia	3	1	2	1	1	3	#	3	1	2
Hawaii	8	1	7	4	3	10	1	9	5	4
Idaho	8	1	8	6	2	8	#	8	5	2
Illinois	9	1	9	6	3	9	1	8	4	3
Indiana	4	1	3	1	2	5	#	5	2	3
Iowa	4	#	4	2	2	5	#	5	2	3
Kansas	6	1	5	3	3	8	#	8	4	4
Kentucky	1	#	1	#	1	2	#	2	1	1
Louisiana	1	#	1	#	#	1	#	1	1	1
Maine	1	#	1	1	#	2	#	2	1	1
Maryland	4	1	3	1	2	4	1	4	1	3
Massachusetts	7	1	6	3	2	6	1	5	4	2
Michigan	3	1	3	1	1	2	#	2	1	1
Minnesota	7	1	7	4	3	8	1	7	4	3
Mississippi	1	#	#	#	#	1	#	1	1	#
Missouri	3	#	2	1	1	2	#	2	1	1
Montana	3	#	3	2	1	4	#	4	2	2
Nebraska	7	1	7	4	3	8	1	7	5	2
Nevada	17	1	15	10	5	22	2	21	11	9
New Hampshire	3	#	2	2	1	3	#	2	1	1
New Jersey	3	1	3	1	1	4	#	3	#	3
New Mexico	25	1	24	13	11	23	2	21	12	9
New York	6	1	5	1	4	9	1	8	1	7
North Carolina	6	1	6	2	4	7	1	7	2	4
North Dakota	2	#	1	1	#	3	1	2	1	1
Ohio	1	#	1	#	#	3	1	2	1	1
Oklahoma	6	1	5	3	2	5	#	5	4	1
Oregon	14	1	12	7	5	13	1	12	5	7
Pennsylvania	2	#	2	1	1	2	#	2	1	1
Rhode Island	7	1	6	2	4	7	1	6	3	4
South Carolina	2	#	2	1	#	4	#	4	2	1
South Dakota	4	#	3	2	2	4	#	4	3	1
Tennessee	2	1	2	1	#	2	#	2	1	1
Texas	15	2	13	9	4	16	2	14	9	5
Utah	12	1	11	7	4	12	1	11	8	4
Vermont	2	#	2	1	1	3	#	2	1	1
Virginia	8	1	7	2	5	8	1	7	3	4
Washington	9	1	8	5	3	9	1	8	4	4
West Virginia	#	#	#	#	#	1	#	1	1	#
Wisconsin	6	1	6	2	3	7	1	6	2	4
Wyoming	5	#	4	3	1	4	#	4	2	1
Other jurisdictions										
District of Columbia	5	1	4	1	2	8	2	6	1	5
DoDEA ¹	8	1	7	4	2	7	1	5	3	2
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-26. Percentage of fourth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2009					2011				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	10	1	10	6	4	11	#	11	6	4
Alabama	2	#	2	2	#	2	#	2	2	1
Alaska	10	#	10	3	7	14	1	13	4	9
Arizona	15	#	14	7	8	12	#	12	3	9
Arkansas	6	#	5	1	4	8	#	8	2	5
California	30	1	28	26	2	32	1	31	27	4
Colorado	11	#	10	5	6	16	#	16	8	7
Connecticut	6	1	5	1	5	6	#	6	1	5
Delaware	4	#	3	#	3	4	#	3	1	2
Florida	8	#	7	#	7	9	#	9	#	8
Georgia	4	#	4	1	3	5	#	5	2	3
Hawaii	10	#	10	4	6	11	#	11	6	5
Idaho	5	#	5	3	2	5	#	4	2	2
Illinois	8	1	7	2	5	8	1	7	2	6
Indiana	4	#	4	1	3	7	#	7	2	5
Iowa	5	#	4	1	3	6	#	5	1	4
Kansas	9	#	9	5	4	11	#	11	6	5
Kentucky	2	#	2	1	1	2	1	1	#	1
Louisiana	2	#	2	1	2	2	#	2	1	1
Maine	2	#	1	1	1	3	#	3	2	2
Maryland	6	1	5	1	4	6	1	5	1	5
Massachusetts	7	1	6	5	2	8	1	7	5	2
Michigan	3	#	3	2	1	4	#	3	3	1
Minnesota	8	1	8	4	4	10	#	9	5	4
Mississippi	1	#	1	#	1	2	#	2	1	1
Missouri	2	#	2	1	1	3	#	3	1	2
Montana	3	#	3	1	1	2	#	2	2	#
Nebraska	7	#	6	4	3	8	#	8	3	5
Nevada	20	1	20	8	12	27	#	26	8	18
New Hampshire	3	#	2	1	2	3	#	2	1	2
New Jersey	4	1	3	#	3	3	#	3	#	3
New Mexico	17	1	16	7	9	17	1	16	8	8
New York	8	1	7	#	7	9	1	9	#	8
North Carolina	6	#	5	2	4	7	#	7	4	3
North Dakota	2	#	1	1	1	3	#	3	1	1
Ohio	2	#	2	1	2	3	#	3	#	3
Oklahoma	4	#	4	2	2	6	1	5	3	3
Oregon	12	1	11	4	7	14	1	13	6	7
Pennsylvania	3	#	3	1	2	3	#	3	1	2
Rhode Island	6	1	6	2	3	6	#	6	4	2
South Carolina	5	#	5	2	2	6	#	6	3	2
South Dakota	2	#	2	1	1	5	#	4	2	2
Tennessee	2	#	2	#	2	4	#	3	#	3
Texas	21	1	20	16	4	22	1	21	16	4
Utah	9	1	8	3	5	7	#	6	3	4
Vermont	2	#	2	1	1	2	#	2	1	1
Virginia	7	#	6	2	5	7	#	7	2	5
Washington	10	#	10	4	5	11	#	11	4	7
West Virginia	#	#	#	#	#	1	#	1	#	#
Wisconsin	7	1	6	1	4	8	#	8	1	6
Wyoming	2	#	2	1	1	4	#	3	2	2
Other jurisdictions										
District of Columbia	8	1	6	1	5	7	1	6	1	5
DoDEA ¹	7	1	6	3	3	7	1	5	3	2
Puerto Rico	—	—	—	—	—	#	#	#	#	#

See notes at end of table.

Table A-26. Percentage of fourth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2013					2015				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	11	#	11	5	5	12	1	11	6	5
Alabama	2	#	2	2	1	2	#	2	2	1
Alaska	14	#	14	2	11	15	#	15	5	9
Arizona	7	#	7	1	6	10	#	10	2	7
Arkansas	8	#	8	3	6	8	#	8	2	6
California	26	1	25	20	4	28	1	28	24	4
Colorado	14	#	14	8	6	14	#	14	10	4
Connecticut	6	#	6	#	5	7	1	7	2	5
Delaware	3	#	3	1	2	5	#	5	2	3
Florida	10	1	10	#	10	10	1	9	#	9
Georgia	5	#	5	1	3	6	#	5	2	4
Hawaii	8	1	7	4	4	8	1	7	4	3
Idaho	5	#	4	2	2	5	#	5	2	3
Illinois	9	#	8	1	7	10	1	10	3	6
Indiana	6	#	6	1	5	7	#	7	2	5
Iowa	6	#	5	1	5	8	1	7	1	6
Kansas	13	#	13	6	6	14	#	13	10	4
Kentucky	3	#	3	#	2	4	#	4	1	3
Louisiana	3	#	3	1	2	3	#	3	1	2
Maine	2	#	2	1	2	3	#	3	2	2
Maryland	8	#	8	1	7	9	#	8	2	6
Massachusetts	11	#	10	7	3	10	#	9	6	3
Michigan	8	#	8	5	3	5	#	4	3	2
Minnesota	8	#	8	5	4	10	#	9	6	3
Mississippi	2	#	1	1	1	2	#	2	1	1
Missouri	2	#	2	#	2	3	#	3	1	1
Montana	4	#	3	3	1	3	#	3	2	1
Nebraska	7	#	7	2	5	7	#	7	2	5
Nevada	23	#	22	4	18	24	1	24	9	15
New Hampshire	2	#	2	1	1	3	#	3	2	1
New Jersey	3	#	3	#	3	3	1	3	#	2
New Mexico	18	#	18	8	10	17	1	16	7	9
New York	8	1	7	#	7	8	1	8	#	7
North Carolina	7	#	6	3	4	7	#	6	3	3
North Dakota	2	#	2	1	1	2	#	2	1	1
Ohio	3	#	3	#	3	4	#	4	1	4
Oklahoma	7	#	6	3	3	7	#	6	4	3
Oregon	14	1	13	5	8	13	1	13	7	6
Pennsylvania	3	#	3	#	2	3	#	3	1	2
Rhode Island	7	#	6	2	4	8	1	7	4	3
South Carolina	7	#	7	4	3	8	#	7	5	3
South Dakota	4	#	4	1	3	3	#	3	1	2
Tennessee	4	#	4	#	4	5	#	5	1	3
Texas	23	1	23	12	11	23	1	22	11	11
Utah	6	#	6	1	5	5	1	4	3	1
Vermont	2	#	2	1	1	3	#	3	2	1
Virginia	7	#	7	2	5	7	1	6	1	5
Washington	9	#	9	2	7	13	#	13	6	7
West Virginia	1	#	1	#	#	1	#	1	1	#
Wisconsin	8	#	8	1	7	7	#	7	2	5
Wyoming	3	#	3	1	2	4	#	4	2	2
Other jurisdictions										
District of Columbia	7	1	6	1	6	7	1	6	2	4
DoDEA ¹	6	1	6	2	3	9	#	8	4	4
Puerto Rico	1	#	1	#	1	1	#	1	#	#

See notes at end of table.

Table A-26. Percentage of fourth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2017					2019				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	12	1	11	7	5	13	1	12	7	6
Alabama	4	#	3	2	1	5	#	5	3	1
Alaska	14	#	14	9	5	15	#	15	9	7
Arizona	11	1	10	4	7	8	#	8	4	4
Arkansas	10	#	10	3	7	8	#	8	2	5
California	27	1	25	22	4	25	1	24	19	4
Colorado	15	1	14	10	4	15	1	14	10	4
Connecticut	9	1	8	2	6	11	1	10	4	6
Delaware	10	1	9	5	4	16	1	15	10	6
Florida	9	1	8	#	7	11	1	10	1	9
Georgia	5	1	5	2	3	11	#	11	5	6
Hawaii	7	2	5	4	1	14	1	13	11	2
Idaho	6	#	6	4	2	9	#	8	6	2
Illinois	12	1	11	5	6	16	#	16	9	7
Indiana	6	#	6	3	3	10	#	10	2	8
Iowa	6	1	5	2	4	7	1	6	2	5
Kansas	13	1	12	10	2	12	#	12	9	2
Kentucky	3	#	3	1	2	5	#	5	1	4
Louisiana	5	#	5	1	4	4	#	4	#	3
Maine	4	#	3	2	1	5	#	4	2	2
Maryland	11	1	10	3	8	14	1	13	4	9
Massachusetts	10	1	9	6	4	14	1	13	7	5
Michigan	8	1	8	6	1	11	#	10	6	4
Minnesota	9	1	9	8	1	13	#	12	10	2
Mississippi	3	#	3	1	2	3	#	3	2	2
Missouri	4	#	4	1	2	6	#	6	4	2
Montana	3	#	3	2	1	4	#	4	3	1
Nebraska	9	1	8	3	6	7	#	7	3	4
Nevada	18	1	18	13	4	21	1	20	15	5
New Hampshire	4	#	3	2	2	5	#	4	3	1
New Jersey	5	1	4	1	3	8	1	8	1	7
New Mexico	17	1	17	8	9	21	1	21	11	10
New York	10	1	9	2	7	10	1	9	2	7
North Carolina	5	1	5	2	3	11	#	11	6	4
North Dakota	2	#	2	1	1	4	#	4	2	2
Ohio	4	#	4	2	2	2	#	2	1	1
Oklahoma	9	#	8	4	4	11	1	11	6	5
Oregon	16	1	15	11	5	11	#	11	7	4
Pennsylvania	4	1	4	2	2	5	#	5	2	3
Rhode Island	9	1	7	3	4	13	1	12	5	7
South Carolina	8	#	8	6	2	6	#	6	4	2
South Dakota	2	#	2	1	1	5	#	5	3	2
Tennessee	5	1	5	2	3	9	1	8	1	7
Texas	25	1	24	13	11	23	1	22	11	11
Utah	9	1	8	6	2	11	1	10	8	2
Vermont	3	#	2	1	1	3	#	3	2	2
Virginia	10	1	9	5	4	12	#	11	6	5
Washington	14	1	13	11	2	15	1	14	9	5
West Virginia	1	#	1	1	#	1	#	1	1	#
Wisconsin	8	#	8	4	4	8	#	8	4	4
Wyoming	3	#	2	1	1	4	#	4	2	2
Other jurisdictions										
District of Columbia	8	1	8	2	5	13	1	13	2	11
DoDEA ¹	9	1	9	5	4	11	1	10	5	6
Puerto Rico	#	#	#	#	#	#	#	#	#	#

See notes at end of table.

Table A-26. Percentage of fourth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	15	1	14	8	5
Alabama	9	#	8	5	3
Alaska	14	#	14	8	6
Arizona	9	1	9	5	3
Arkansas	8	#	7	1	6
California	26	1	25	22	3
Colorado	16	1	15	11	5
Connecticut	14	1	13	5	7
Delaware	18	1	17	10	6
Florida	11	1	11	2	9
Georgia	13	#	13	7	6
Hawaii	15	1	14	12	2
Idaho	8	#	8	6	2
Illinois	21	1	20	9	11
Indiana	9	#	9	1	8
Iowa	5	#	4	2	2
Kansas	13	#	13	11	2
Kentucky	8	#	7	1	6
Louisiana	5	#	4	#	4
Maine	4	#	4	3	1
Maryland	18	1	17	5	12
Massachusetts	13	1	13	9	4
Michigan	10	#	9	8	1
Minnesota	13	1	12	9	4
Mississippi	5	#	5	2	3
Missouri	5	#	5	3	1
Montana	3	#	3	2	1
Nebraska	8	#	8	4	4
Nevada	20	1	19	16	3
New Hampshire	4	#	4	2	2
New Jersey	9	1	8	2	7
New Mexico	22	#	21	14	7
New York	11	1	11	3	7
North Carolina	12	1	11	7	4
North Dakota	4	#	4	2	1
Ohio	5	#	5	1	3
Oklahoma	14	#	13	9	5
Oregon	12	1	11	8	3
Pennsylvania	5	1	5	3	2
Rhode Island	14	1	13	8	6
South Carolina	7	#	7	4	3
South Dakota	6	#	6	5	1
Tennessee	8	1	7	2	5
Texas	26	1	25	16	9
Utah	13	#	13	9	4
Vermont	3	#	3	2	1
Virginia	16	1	15	7	7
Washington	16	1	15	11	4
West Virginia	1	#	1	1	#
Wisconsin	9	#	9	6	3
Wyoming	5	#	5	3	2
Other jurisdictions					
District of Columbia	18	1	17	4	13
DoDEA ¹	11	#	11	4	7
Puerto Rico	#	#	#	#	#

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–22 Mathematics Assessments.

Table A-27. Percentage of eighth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were not permitted, by state/jurisdiction: Various years, 1990–2000

State/jurisdiction	1990			1992			1996			2000		
	Identified	Excluded	Assessed									
Nation (public)	—	—	—	2	2	1	3	1	2	4	2	3
Alabama	#	#	#	#	#	#	#	#	#	1	#	#
Alaska	—	—	—	—	—	—	5	1	4	—	—	—
Arizona	5	1	4	6	2	4	9	4	5	10	4	6
Arkansas	#	#	#	#	#	#	1	#	#	2	1	1
California	8	4	4	13	5	8	13	6	7	19	4	15
Colorado	1	1	#	1	1	1	2	1	1	—	—	—
Connecticut	2	1	1	3	1	1	2	2	1	2	1	1
Delaware	1	#	#	1	#	1	1	#	#	—	—	—
Florida	2	2	1	4	2	2	4	3	1	—	—	—
Georgia	#	#	#	1	#	#	2	1	#	1	1	#
Hawaii	3	1	2	5	2	3	4	1	2	6	2	4
Idaho	1	#	#	1	#	#	—	—	—	4	1	3
Illinois	1	1	#	—	—	—	—	—	—	5	2	3
Indiana	#	#	#	1	#	#	1	#	1	2	1	1
Iowa	#	#	#	1	#	1	#	#	#	—	—	—
Kansas	—	—	—	—	—	—	—	—	—	5	2	2
Kentucky	#	#	#	#	#	#	#	#	#	1	#	#
Louisiana	#	#	#	#	#	#	1	#	1	#	#	#
Maine	—	—	—	#	#	#	1	#	1	1	#	1
Maryland	1	1	1	1	1	1	1	1	#	2	1	#
Massachusetts	—	—	—	4	2	1	2	1	#	4	3	1
Michigan	#	#	#	1	#	#	1	1	1	1	1	#
Minnesota	1	#	1	#	#	#	1	#	1	2	1	1
Mississippi	—	—	—	#	#	#	#	#	#	#	#	#
Missouri	—	—	—	1	#	#	1	1	#	1	#	#
Montana	#	#	#	—	—	—	#	#	#	1	#	1
Nebraska	#	#	#	1	#	#	1	1	#	2	1	1
Nevada	—	—	—	—	—	—	7	3	4	5	3	2
New Hampshire	#	#	#	#	#	#	#	#	#	—	—	—
New Jersey	2	2	1	3	1	1	3	2	1	—	—	—
New Mexico	1	1	1	3	1	2	6	4	2	11	4	8
New York	4	2	2	3	3	1	5	3	2	6	4	2
North Carolina	#	#	#	#	#	#	1	1	#	3	3	#
North Dakota	1	#	1	1	#	1	#	#	#	1	#	#
Ohio	#	#	#	#	#	#	—	—	—	1	1	#
Oklahoma	1	#	#	1	#	1	—	—	—	2	1	1
Oregon	1	#	1	—	—	—	2	1	1	5	3	2
Pennsylvania	#	#	#	1	#	1	—	—	—	—	—	—
Rhode Island	4	2	2	4	2	2	4	2	2	4	3	1
South Carolina	—	—	—	#	#	#	#	#	#	#	#	#
Tennessee	—	—	—	#	#	#	#	#	#	1	1	#
Texas	5	2	3	6	2	4	7	3	4	8	3	5
Utah	—	—	—	1	1	#	2	1	#	4	2	2
Vermont	—	—	—	—	—	—	1	#	1	1	1	#
Virginia	1	1	#	2	1	2	1	1	1	2	1	1
Washington	—	—	—	—	—	—	2	1	1	—	—	—
West Virginia	#	#	#	#	#	#	#	#	#	#	#	#
Wisconsin	1	#	#	1	#	1	1	1	#	1	1	#
Wyoming	1	#	#	#	#	#	1	#	1	2	#	1
Other jurisdictions												
District of Columbia	1	1	#	3	2	1	4	3	2	4	3	2
DoDEA ¹	—	—	—	—	—	—	1	1	#	3	2	1

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. South Dakota did not participate in NAEP mathematics assessments from 1990 to 2000. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2000 Mathematics Assessments.

Table A-28. Percentage of eighth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22

State/jurisdiction	2000					2003				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	4	1	3	3	1	6	1	5	4	1
Alabama	1	#	#	#	#	1	#	1	1	#
Alaska	—	—	—	—	—	11	#	11	10	1
Arizona	10	1	8	6	2	16	2	14	12	2
Arkansas	1	#	#	#	#	3	1	2	1	1
California	19	2	17	13	4	20	2	19	17	1
Colorado	—	—	—	—	—	5	1	4	2	2
Connecticut	2	2	1	#	1	4	1	3	1	1
Delaware	—	—	—	—	—	2	1	1	1	1
Florida	—	—	—	—	—	7	1	5	3	3
Georgia	2	1	#	#	#	2	1	2	1	1
Hawaii	6	1	4	4	#	6	1	5	3	2
Idaho	4	1	4	3	1	6	#	5	4	1
Illinois	5	2	3	3	#	4	1	3	1	2
Indiana	1	#	1	1	#	3	#	2	1	1
Iowa	—	—	—	—	—	2	#	2	1	1
Kansas	1	#	1	1	#	4	1	3	1	2
Kentucky	1	1	1	1	#	1	1	1	1	#
Louisiana	1	#	1	#	#	1	1	1	#	#
Maine	#	#	#	#	#	1	#	1	#	#
Maryland	2	1	1	1	#	3	1	2	2	#
Massachusetts	4	2	2	1	1	3	1	2	1	1
Michigan	#	#	#	#	#	3	1	2	1	1
Minnesota	3	1	3	2	#	4	1	3	2	1
Mississippi	#	#	#	#	#	1	#	#	#	#
Missouri	#	#	#	#	#	1	#	1	#	1
Montana	#	#	#	#	#	3	#	2	1	1
Nebraska	2	1	1	1	#	3	1	2	1	#
Nevada	5	1	4	3	#	7	1	6	5	2
New Hampshire	—	—	—	—	—	1	#	1	#	1
New Jersey	—	—	—	—	—	3	1	2	#	2
New Mexico	11	2	9	7	2	20	1	19	11	7
New York	6	2	4	3	1	6	2	4	1	3
North Carolina	2	1	1	1	#	4	1	3	1	2
North Dakota	1	#	1	1	#	2	#	2	1	1
Ohio	2	1	1	#	#	1	#	1	#	#
Oklahoma	2	#	1	1	#	5	1	5	3	1
Oregon	5	1	4	3	1	7	1	6	4	2
Pennsylvania	—	—	—	—	—	2	#	2	1	1
Rhode Island	4	1	3	2	1	5	2	4	2	2
South Carolina	1	#	#	#	#	1	#	1	1	#
South Dakota	—	—	—	—	—	3	#	3	2	1
Tennessee	1	1	1	1	#	3	1	2	2	#
Texas	8	2	6	5	1	8	2	6	5	1
Utah	4	#	3	3	1	7	1	6	5	2
Vermont	1	1	1	#	#	1	#	1	1	#
Virginia	3	1	2	1	1	4	2	2	1	1
Washington	—	—	—	—	—	5	1	4	3	1
West Virginia	#	#	#	#	#	1	#	#	#	#
Wisconsin	2	1	1	1	1	3	1	2	1	1
Wyoming	2	#	2	2	#	3	#	3	2	1
Other jurisdictions										
District of Columbia	4	2	2	1	2	5	1	4	2	2
DoDEA ¹	3	1	2	2	#	5	1	4	2	1
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-28. Percentage of eighth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2005					2007				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	6	1	5	4	1	7	1	6	4	2
Alabama	1	#	1	1	#	2	#	2	2	#
Alaska	15	#	15	11	4	17	1	16	11	5
Arizona	14	2	12	10	2	10	1	9	7	2
Arkansas	1	1	1	#	#	3	#	3	1	2
California	21	1	20	18	2	22	1	21	19	2
Colorado	7	1	6	3	3	7	#	6	3	3
Connecticut	3	#	3	1	2	4	#	4	1	2
Delaware	4	1	2	2	1	3	1	2	1	1
Florida	6	1	4	1	3	6	1	5	1	4
Georgia	2	#	2	1	1	2	#	2	1	1
Hawaii	7	1	6	4	2	7	1	6	4	3
Idaho	6	1	6	4	2	6	#	5	4	2
Illinois	3	1	2	1	1	4	1	3	2	1
Indiana	2	#	2	1	1	4	#	3	2	1
Iowa	2	#	2	1	1	3	#	3	1	2
Kansas	4	1	3	2	1	4	#	4	3	1
Kentucky	1	#	1	#	1	2	#	1	#	1
Louisiana	1	#	1	#	1	1	#	1	1	1
Maine	1	#	1	#	1	2	#	1	1	#
Maryland	2	#	2	1	#	2	#	2	1	1
Massachusetts	3	1	2	1	1	3	1	3	1	1
Michigan	3	#	2	2	1	2	#	2	1	#
Minnesota	7	1	6	5	1	5	#	4	4	1
Mississippi	1	#	1	#	#	#	#	#	#	#
Missouri	1	#	1	#	1	2	#	2	1	1
Montana	5	#	4	2	2	5	#	4	3	2
Nebraska	3	#	3	2	1	3	1	2	1	1
Nevada	9	1	9	6	2	11	1	9	6	4
New Hampshire	1	#	1	#	1	2	#	2	1	1
New Jersey	2	1	1	#	1	4	1	3	1	2
New Mexico	17	2	15	9	6	17	2	15	11	4
New York	5	1	4	1	3	5	1	4	#	4
North Carolina	4	1	3	1	2	4	#	4	2	2
North Dakota	1	#	1	1	#	3	#	2	1	1
Ohio	1	#	1	#	#	1	#	1	#	#
Oklahoma	4	1	4	2	1	4	1	3	2	1
Oregon	8	1	7	5	3	9	1	8	5	3
Pennsylvania	1	#	1	#	#	2	1	1	#	1
Rhode Island	5	1	4	2	2	4	1	3	2	1
South Carolina	1	#	1	1	#	2	#	2	1	1
South Dakota	2	#	2	1	1	1	#	1	#	#
Tennessee	1	#	1	1	#	2	#	2	1	1
Texas	8	2	6	5	1	8	2	6	4	2
Utah	7	1	6	4	2	9	1	8	6	2
Vermont	1	#	1	#	#	2	#	1	1	1
Virginia	4	1	3	2	1	4	1	3	2	1
Washington	5	1	4	3	2	6	1	5	3	2
West Virginia	#	#	#	#	#	1	#	1	1	#
Wisconsin	4	1	3	1	1	5	1	3	1	2
Wyoming	4	#	4	3	1	3	#	3	1	1
Other jurisdictions										
District of Columbia	4	1	3	1	2	4	1	3	1	2
DoDEA ¹	4	1	4	2	1	5	1	3	2	1
Puerto Rico	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-28. Percentage of eighth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2009						2011					
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations		Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	
Nation (public)	6	#	5	3	2		6	#	6	3	2	
Alabama	1	#	1	1	#		2	#	2	1	#	
Alaska	11	1	10	4	6		11	1	10	3	7	
Arizona	6	1	6	2	3		2	#	2	1	1	
Arkansas	4	#	4	1	2		5	#	5	2	3	
California	20	1	19	16	3		17	1	17	13	4	
Colorado	7	#	7	3	4		7	#	7	4	3	
Connecticut	3	#	3	1	2		4	#	4	1	3	
Delaware	2	1	2	#	1		2	#	2	1	1	
Florida	5	#	5	#	4		5	#	5	#	4	
Georgia	2	#	2	#	1		2	#	2	#	1	
Hawaii	7	1	6	3	3		9	1	9	5	3	
Idaho	4	#	3	2	1		4	#	4	2	2	
Illinois	3	1	3	1	2		4	#	3	2	2	
Indiana	3	#	3	1	1		3	#	3	1	2	
Iowa	2	#	2	1	1		3	#	3	1	2	
Kansas	6	#	5	3	2		7	#	7	5	2	
Kentucky	1	#	1	#	1		1	#	1	#	1	
Louisiana	1	#	1	#	1		1	#	1	#	1	
Maine	2	#	1	1	1		3	#	3	2	1	
Maryland	3	#	2	#	2		3	1	2	#	2	
Massachusetts	3	1	2	1	1		4	1	3	2	2	
Michigan	2	#	2	1	1		2	#	2	1	1	
Minnesota	5	1	5	3	2		5	#	5	3	2	
Mississippi	1	#	1	#	#		1	#	1	#	#	
Missouri	1	#	1	#	#		1	#	1	#	1	
Montana	3	#	3	1	1		2	#	2	1	1	
Nebraska	3	#	3	2	1		3	#	2	1	1	
Nevada	8	#	8	4	4		10	1	9	5	4	
New Hampshire	1	#	1	1	#		2	#	2	1	1	
New Jersey	2	#	2	#	2		2	#	2	#	2	
New Mexico	11	1	10	5	5		12	1	11	7	4	
New York	5	1	4	#	4		6	#	5	#	5	
North Carolina	5	#	5	2	3		5	#	5	2	3	
North Dakota	2	1	1	1	#		2	#	2	1	1	
Ohio	1	1	1	#	#		1	#	1	#	1	
Oklahoma	3	#	3	2	1		3	1	3	1	1	
Oregon	6	#	6	4	2		6	#	6	3	3	
Pennsylvania	2	#	2	1	1		2	#	2	#	2	
Rhode Island	3	1	3	1	2		3	#	3	1	2	
South Carolina	3	#	3	1	1		4	#	4	2	3	
South Dakota	2	#	1	1	#		2	#	2	1	1	
Tennessee	1	#	1	#	1		2	#	1	#	1	
Texas	7	1	6	4	1		9	1	8	6	1	
Utah	5	#	4	3	2		5	1	4	2	2	
Vermont	2	#	1	1	1		1	#	1	1	1	
Virginia	4	#	3	1	2		6	1	5	3	2	
Washington	4	#	3	2	2		5	#	5	3	2	
West Virginia	#	#	#	#	#		1	#	1	#	#	
Wisconsin	4	1	3	1	2		5	#	5	1	4	
Wyoming	2	#	2	1	1		2	#	2	1	1	
Other jurisdictions												
District of Columbia	4	1	3	1	2		6	1	5	1	4	
DoDEA ¹	5	1	4	2	2		5	1	4	2	1	
Puerto Rico	—	—	—	—	—		#	#	#	#	#	

See notes at end of table.

Table A-28. Percentage of eighth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2013						2015				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	
Nation (public)	6	#	5	2	3	7	#	6	3	3	
Alabama	1	#	1	1	#	1	#	1	1	1	
Alaska	11	#	11	2	9	12	1	11	4	7	
Arizona	2	#	1	#	1	4	#	4	1	2	
Arkansas	7	#	6	2	4	7	#	7	3	4	
California	13	1	12	9	3	15	#	14	10	4	
Colorado	8	#	8	4	4	12	#	11	8	4	
Connecticut	4	#	4	#	3	4	#	3	1	2	
Delaware	2	#	2	#	1	3	#	2	1	1	
Florida	5	1	4	#	4	7	1	6	#	5	
Georgia	2	#	2	#	2	3	#	3	1	2	
Hawaii	10	1	10	5	5	7	1	6	4	3	
Idaho	3	#	3	1	2	3	#	3	1	2	
Illinois	5	#	4	1	3	5	#	5	2	3	
Indiana	4	#	3	1	3	6	#	5	2	3	
Iowa	3	#	3	#	2	4	#	4	2	2	
Kansas	8	#	8	5	2	11	#	10	9	2	
Kentucky	2	#	2	#	1	1	#	1	#	1	
Louisiana	1	#	1	#	1	1	#	1	#	1	
Maine	2	#	2	#	1	3	#	3	2	#	
Maryland	3	1	3	#	2	4	1	3	1	2	
Massachusetts	6	1	5	3	2	6	#	5	3	3	
Michigan	4	1	3	1	2	4	#	3	2	1	
Minnesota	6	#	5	3	2	7	#	6	5	2	
Mississippi	1	#	1	1	#	1	#	1	1	#	
Missouri	1	#	1	#	1	2	#	2	1	1	
Montana	2	#	2	1	1	2	#	2	1	#	
Nebraska	3	#	2	1	2	3	1	2	1	1	
Nevada	7	#	7	2	5	15	#	15	10	4	
New Hampshire	2	#	2	#	2	2	#	2	#	1	
New Jersey	2	#	1	#	1	2	1	2	#	2	
New Mexico	14	#	13	7	6	14	1	13	8	5	
New York	7	#	6	#	6	6	#	6	#	6	
North Carolina	5	#	4	2	3	5	#	5	2	3	
North Dakota	2	#	2	1	1	2	#	2	1	1	
Ohio	2	#	2	#	1	3	1	3	1	2	
Oklahoma	4	#	4	2	2	5	#	5	3	2	
Oregon	4	#	3	1	2	3	1	3	1	1	
Pennsylvania	3	#	3	#	2	3	1	2	1	1	
Rhode Island	5	#	5	1	4	5	1	5	2	3	
South Carolina	4	#	3	2	1	5	#	4	3	1	
South Dakota	3	#	2	1	1	3	#	2	2	1	
Tennessee	1	#	1	#	1	2	#	2	#	1	
Texas	8	1	7	3	4	11	1	10	5	5	
Utah	4	#	4	1	3	4	1	3	1	2	
Vermont	1	#	1	#	1	2	#	2	#	1	
Virginia	5	#	5	1	4	6	1	5	2	3	
Washington	5	#	5	2	3	7	#	7	4	3	
West Virginia	1	#	1	#	#	1	#	1	#	#	
Wisconsin	5	#	5	1	4	4	#	4	2	2	
Wyoming	2	#	2	#	2	3	#	3	1	1	
Other jurisdictions											
District of Columbia	6	1	6	1	5	7	2	5	1	3	
DoDEA ¹	4	#	3	2	2	5	#	5	3	2	
Puerto Rico	#	#	#	#	#	1	#	#	#	#	

See notes at end of table.

Table A-28. Percentage of eighth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2017					2019				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	7	1	6	3	3	8	1	7	4	3
Alabama	2	#	2	1	#	1	#	1	1	#
Alaska	12	1	11	6	6	12	#	12	5	6
Arizona	4	#	4	1	3	6	#	6	3	3
Arkansas	9	1	8	4	4	6	#	6	2	4
California	15	1	13	10	3	15	1	14	11	4
Colorado	10	1	9	7	3	8	#	8	5	3
Connecticut	5	1	4	1	2	5	1	4	2	2
Delaware	3	1	3	1	2	5	#	4	2	2
Florida	7	1	6	1	5	7	1	7	#	6
Georgia	3	#	2	#	2	3	#	3	1	2
Hawaii	6	1	5	3	2	6	1	5	4	1
Idaho	4	1	3	2	1	4	#	4	2	2
Illinois	5	1	5	2	3	7	#	6	2	4
Indiana	5	#	5	2	3	5	#	5	2	3
Iowa	4	#	3	1	2	5	#	5	1	4
Kansas	12	#	11	10	1	9	#	8	7	2
Kentucky	2	#	2	#	1	3	#	2	#	2
Louisiana	2	#	2	#	2	3	#	3	1	2
Maine	2	1	2	1	1	3	#	3	2	1
Maryland	5	1	4	1	4	6	1	6	1	5
Massachusetts	7	1	6	3	4	7	1	6	3	3
Michigan	7	1	6	4	1	6	#	6	3	3
Minnesota	7	1	6	5	1	6	#	6	4	2
Mississippi	2	#	1	1	1	2	#	2	1	1
Missouri	2	#	2	1	1	2	#	2	1	1
Montana	2	#	2	1	1	2	#	2	1	1
Nebraska	3	1	3	1	1	4	#	3	1	2
Nevada	14	1	13	10	3	14	1	13	10	3
New Hampshire	2	#	2	1	1	3	#	3	1	2
New Jersey	3	1	2	#	2	5	1	4	#	4
New Mexico	12	1	12	5	7	12	1	12	6	6
New York	7	1	6	1	5	7	1	6	1	5
North Carolina	4	1	3	2	2	4	#	4	2	2
North Dakota	3	#	2	1	1	2	#	2	1	1
Ohio	3	#	2	1	2	2	#	2	#	2
Oklahoma	5	#	5	3	2	6	1	6	3	3
Oregon	5	#	5	2	3	7	#	6	4	2
Pennsylvania	3	#	3	1	2	4	#	4	1	2
Rhode Island	6	1	5	1	4	8	1	7	3	4
South Carolina	7	#	7	6	1	7	#	7	6	1
South Dakota	3	1	2	2	#	3	#	3	2	1
Tennessee	3	#	2	1	2	3	#	3	1	2
Texas	12	#	11	7	4	15	#	15	11	4
Utah	5	#	5	2	3	6	#	5	3	2
Vermont	1	#	1	1	1	1	#	1	#	1
Virginia	6	1	5	2	3	5	1	5	2	3
Washington	6	#	6	3	2	9	1	8	6	3
West Virginia	1	#	1	1	#	#	#	#	#	#
Wisconsin	5	#	5	2	3	5	#	5	2	3
Wyoming	2	#	2	1	1	2	#	2	1	1
Other jurisdictions										
District of Columbia	8	1	6	1	5	7	1	6	1	6
DoDEA ¹	5	1	4	2	2	6	#	5	3	3
Puerto Rico	#	#	#	#	#	#	#	#	#	#

See notes at end of table.

Table A-28. Percentage of eighth-grade public school students identified as English learners excluded and assessed in NAEP mathematics when accommodations were permitted, by state/jurisdiction: Various years, 2000–22—Continued

State/jurisdiction	2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	10	1	9	6	4
Alabama	4	#	4	3	1
Alaska	14	#	13	9	4
Arizona	8	#	8	5	3
Arkansas	8	#	7	2	5
California	18	1	17	13	4
Colorado	10	#	9	7	2
Connecticut	6	1	5	1	4
Delaware	10	1	10	6	4
Florida	7	1	6	1	6
Georgia	6	#	6	3	3
Hawaii	12	1	11	10	1
Idaho	6	#	6	3	3
Illinois	12	#	12	6	6
Indiana	7	#	6	1	5
Iowa	5	#	5	2	3
Kansas	8	#	7	5	2
Kentucky	4	#	4	1	2
Louisiana	3	#	3	#	3
Maine	3	#	3	2	1
Maryland	9	1	9	2	7
Massachusetts	7	2	5	3	3
Michigan	6	#	5	4	1
Minnesota	7	1	7	4	2
Mississippi	4	#	4	3	1
Missouri	5	#	4	2	2
Montana	3	#	3	2	1
Nebraska	5	#	4	3	1
Nevada	12	1	12	10	2
New Hampshire	4	#	4	3	1
New Jersey	4	1	3	#	3
New Mexico	20	1	19	13	6
New York	8	1	8	1	6
North Carolina	8	#	8	4	3
North Dakota	3	#	3	1	2
Ohio	3	#	3	1	2
Oklahoma	8	#	8	5	3
Oregon	8	1	7	5	2
Pennsylvania	5	#	4	2	2
Rhode Island	11	1	10	5	5
South Carolina	6	1	5	4	2
South Dakota	4	#	4	3	1
Tennessee	5	1	4	1	3
Texas	21	1	21	15	6
Utah	11	1	10	6	4
Vermont	2	#	2	1	#
Virginia	7	1	7	3	3
Washington	10	#	10	6	4
West Virginia	1	#	1	#	#
Wisconsin	6	#	5	2	3
Wyoming	2	#	2	1	1
Other jurisdictions					
District of Columbia	11	1	10	1	9
DoDEA ¹	6	#	5	3	3
Puerto Rico	#	#	#	#	#

— Not available.

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–22 Mathematics Assessments.

Table A-29. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, as a percentage of identified SD and/or EL students, by state/jurisdiction: 2022

State/jurisdiction	SD AND/OR EL				SD				EL			
	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	7	93	41	52	9	91	24	67	5	95	58	37
Alabama	6	94	44	50	8	92	34	58	3	97	57	40
Alaska	3	97	39	57	5	95	23	72	3	97	57	40
Arizona	6	94	42	52	7	93	30	63	6	94	57	37
Arkansas	4	96	14	83	3	97	12	84	5	95	17	78
California	6	94	73	21	13	87	39	47	4	96	84	12
Colorado	6	94	52	42	9	91	29	62	4	96	67	29
Connecticut	9	91	30	61	9	91	20	71	7	93	39	54
Delaware	5	95	44	51	6	94	25	69	4	96	59	36
Florida	9	91	15	75	10	90	14	76	8	92	14	78
Georgia	5	95	38	57	8	92	21	71	3	97	55	43
Hawaii	7	93	67	27	11	89	42	47	5	95	82	13
Idaho	4	96	50	46	5	95	35	59	2	98	73	26
Illinois	4	96	36	59	7	93	21	72	2	98	44	53
Indiana	2	98	25	74	2	98	29	69	2	98	12	86
Iowa	7	93	23	70	8	92	17	75	9	91	39	53
Kansas	5	95	61	34	6	94	43	51	3	97	80	17
Kentucky	8	92	24	68	9	91	26	65	6	94	18	76
Louisiana	7	93	9	84	8	92	8	84	1	99	8	91
Maine	6	94	29	65	6	94	20	73	7	93	72	20
Maryland	5	95	23	72	5	95	15	80	4	96	28	68
Massachusetts	6	94	34	60	7	93	10	83	6	94	64	30
Michigan	13	87	52	35	18	82	32	50	5	95	81	14
Minnesota	9	91	55	37	12	88	41	47	6	94	65	30
Mississippi	4	96	28	68	4	96	23	73	2	98	43	55
Missouri	5	95	35	60	5	95	26	69	3	97	67	30
Montana	5	95	37	58	6	94	29	65	‡	‡	‡	‡
Nebraska	5	95	38	57	7	93	30	64	#	100	53	46
Nevada	6	94	73	21	12	88	58	30	3	97	80	17
New Hampshire	5	95	26	68	5	95	23	72	6	94	40	54
New Jersey	8	92	15	77	7	93	12	81	10	90	17	73
New Mexico	5	95	51	45	8	92	24	68	2	98	66	31
New York	4	96	18	77	4	96	12	85	5	95	30	65
North Carolina	8	92	40	52	8	92	23	69	9	91	59	33
North Dakota	7	93	31	62	7	93	22	70	6	94	62	32
Ohio	6	94	13	81	6	94	7	87	7	93	31	62
Oklahoma	7	93	42	51	11	89	28	62	3	97	63	34
Oregon	6	94	54	40	7	93	40	53	6	94	66	28
Pennsylvania	8	92	31	60	8	92	26	66	10	90	49	41
Rhode Island	6	94	32	62	7	93	9	85	5	95	53	42
South Carolina	5	95	41	54	5	95	31	64	5	95	61	34
South Dakota	5	95	55	41	6	94	47	47	4	96	76	20
Tennessee	11	89	26	63	12	88	26	61	8	92	27	65
Texas	8	92	45	47	13	87	17	70	5	95	60	35
Utah	4	96	53	43	6	94	39	56	2	98	65	32
Vermont	6	94	25	69	6	94	20	74	‡	‡	‡	‡
Virginia	10	90	40	50	15	85	29	56	7	93	46	47
Washington	8	92	56	37	12	88	37	51	6	94	69	25
West Virginia	7	93	44	49	7	93	43	50	‡	‡	‡	‡
Wisconsin	6	94	42	52	8	92	27	66	5	95	67	28
Wyoming	6	94	31	63	7	93	23	71	2	98	59	39
Other jurisdictions												
District of Columbia	7	93	14	79	8	92	6	86	6	94	20	74
DoDEA ¹	6	94	26	68	9	91	17	74	3	97	37	61
Puerto Rico	#	100	5	94	#	100	5	95	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2022 Mathematics Assessments.

Table A-30. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, as a percentage of identified SD and/or EL students, by state/jurisdiction: 2022

State/jurisdiction	SD AND/OR EL				SD				EL			
	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	7	93	32	61	8	92	15	77	6	94	56	38
Alabama	10	90	36	54	10	90	27	63	7	93	63	30
Alaska	4	96	41	55	7	93	14	79	3	97	64	32
Arizona	9	91	39	52	12	88	22	66	4	96	65	31
Arkansas	4	96	12	84	5	95	5	90	3	97	26	71
California	8	92	59	33	11	89	31	59	6	94	74	20
Colorado	6	94	44	49	8	92	20	72	3	97	76	20
Connecticut	7	93	17	76	7	93	14	80	11	89	23	66
Delaware	7	93	27	66	7	93	8	85	5	95	60	35
Florida	10	90	6	84	10	90	5	85	9	91	8	83
Georgia	8	92	15	77	9	91	5	86	6	94	39	54
Hawaii	9	91	71	20	13	87	57	31	7	93	85	8
Idaho	7	93	29	64	9	91	16	74	2	98	53	45
Illinois	5	95	30	66	5	95	11	84	4	96	48	48
Indiana	3	97	12	85	3	97	9	88	5	95	17	79
Iowa	7	93	16	76	7	93	9	84	8	92	39	54
Kansas	7	93	40	54	7	93	22	71	6	94	67	27
Kentucky	12	88	13	75	12	88	8	80	9	91	36	55
Louisiana	10	90	3	87	9	91	3	88	‡	‡	‡	‡
Maine	4	96	20	76	3	97	15	82	‡	‡	‡	‡
Maryland	8	92	11	81	8	92	3	90	10	90	21	70
Massachusetts	10	90	21	69	5	95	14	81	25	75	37	38
Michigan	10	90	34	56	11	89	19	70	5	95	69	26
Minnesota	10	90	47	43	10	90	41	49	9	91	58	33
Mississippi	5	95	22	73	5	95	10	85	6	94	64	30
Missouri	5	95	31	64	5	95	25	71	7	93	48	44
Montana	7	93	24	69	8	92	14	78	‡	‡	‡	‡
Nebraska	9	91	25	66	9	91	13	77	8	92	64	29
Nevada	5	95	61	34	9	91	35	56	5	95	77	18
New Hampshire	7	93	37	57	7	93	30	63	‡	‡	‡	‡
New Jersey	7	93	7	86	4	96	6	90	20	80	12	68
New Mexico	5	95	52	43	8	92	29	63	3	97	67	30
New York	7	93	8	85	7	93	4	90	6	94	17	77
North Carolina	6	94	30	64	6	94	13	81	6	94	55	39
North Dakota	8	92	21	71	8	92	18	74	‡	‡	‡	‡
Ohio	6	94	9	85	5	95	4	91	12	88	33	55
Oklahoma	6	94	34	60	7	93	21	72	5	95	62	32
Oregon	7	93	41	52	6	94	29	64	10	90	62	28
Pennsylvania	6	94	20	74	5	95	14	80	8	92	43	50
Rhode Island	9	91	26	65	9	91	13	78	10	90	44	46
South Carolina	8	92	40	52	7	93	29	63	9	91	63	28
South Dakota	9	91	51	40	10	90	44	46	5	95	78	17
Tennessee	13	87	17	70	13	87	13	73	13	87	25	62
Texas	5	95	48	47	7	93	14	79	3	97	69	27
Utah	7	93	37	56	10	90	17	73	5	95	56	39
Vermont	7	93	23	70	7	93	19	74	‡	‡	‡	‡
Virginia	8	92	30	62	8	92	21	70	12	88	42	46
Washington	7	93	41	52	9	91	25	66	3	97	57	40
West Virginia	8	92	31	61	7	93	29	63	‡	‡	‡	‡
Wisconsin	7	93	25	68	8	92	17	75	4	96	43	53
Wyoming	9	91	17	75	9	91	14	78	‡	‡	‡	‡
Other jurisdictions												
District of Columbia	9	91	5	86	9	91	2	89	9	91	9	82
DoDEA ¹	6	94	21	73	7	93	7	86	4	96	50	46
Puerto Rico	#	100	1	99	#	100	1	99	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. In Puerto Rico, the English learner (EL) category is for the Spanish learner (SL).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2022 Mathematics Assessments.

Table A-31. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22

Urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	22	4	18	10	8	23	3	20	10	10
Large City ¹ (public)	31	5	25	17	9	32	4	28	17	11
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	9	1	8	4	4	11	1	9	3	6
Austin	—	—	—	—	—	37	10	27	12	14
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	33	5	28	11	17	33	6	27	11	15
Charlotte	21	4	17	5	12	22	3	19	7	12
Chicago	31	8	23	16	7	29	4	25	15	9
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	15	7	8	3	5	17	6	12	2	9
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	18	4	14	4	10	20	6	14	4	10
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	45	8	37	19	18	46	7	38	17	21
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	60	3	56	48	8	59	5	54	47	7
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	22	6	16	4	12	24	4	19	2	17
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	41	2	38	34	4	43	4	39	33	6
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-31. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	23	3	20	10	10	23	2	20	9	11
Large City ¹ (public)	33	4	29	17	12	31	3	28	14	14
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	12	2	11	4	7	12	1	11	4	7
Austin	40	5	34	17	18	44	5	39	20	19
Baltimore City	—	—	—	—	—	19	9	11	1	9
Boston	47	5	42	25	17	35	6	30	13	16
Charlotte	22	3	19	7	12	19	2	17	4	13
Chicago	32	5	26	17	10	24	4	20	7	13
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	23	13	10	1	8	25	10	15	2	13
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	20	3	17	7	10
District of Columbia (DCPS)	20	6	14	2	13	21	5	17	3	14
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	38	3	34	29	5
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	45	4	41	23	18	43	3	40	22	17
Jefferson County (KY)	—	—	—	—	—	19	3	15	5	10
Los Angeles	53	1	51	44	8	46	1	44	37	7
Miami-Dade	—	—	—	—	—	21	3	18	2	16
Milwaukee	—	—	—	—	—	30	7	23	2	20
New York City	29	2	27	2	25	31	2	29	1	28
Philadelphia	—	—	—	—	—	22	4	18	2	15
San Diego	46	3	43	36	7	43	3	40	32	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-31. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	23	2	21	9	12	23	2	21	7	14
Large City ¹ (public)	32	3	29	14	15	30	2	29	11	18
Albuquerque	30	3	27	7	19	31	1	30	9	20
Atlanta	11	1	10	1	8	12	1	11	1	10
Austin	45	4	41	24	17	45	2	43	12	31
Baltimore City	21	11	10	2	8	21	2	20	1	19
Boston	51	5	46	29	17	50	4	46	26	20
Charlotte	20	1	19	7	12	18	1	17	4	13
Chicago	29	2	27	7	20	24	1	23	3	19
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	28	6	22	1	21	28	4	23	1	22
Dallas	56	3	53	45	8	57	2	55	20	35
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	26	6	20	14	6	31	5	26	11	14
District of Columbia (DCPS)	23	6	16	1	15	22	2	20	1	18
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	36	1	35	28	7	34	1	33	25	8
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	30	2	28	2	26	26	1	25	2	23
Houston	44	4	40	26	14	46	2	44	16	27
Jefferson County (KY)	19	5	14	5	9	18	2	16	4	12
Los Angeles	39	2	37	28	9	33	2	31	22	10
Miami-Dade	27	3	24	1	23	32	2	29	1	28
Milwaukee	33	3	30	3	28	32	3	29	2	27
New York City	30	2	29	1	27	30	1	28	1	28
Philadelphia	22	4	18	2	16	22	3	18	2	16
San Diego	43	3	41	32	8	40	1	38	26	12
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-31. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	24	2	23	8	14	25	2	23	10	13
Large City ¹ (public)	32	2	29	12	17	31	2	29	13	16
Albuquerque	33	2	31	9	22	30	1	29	12	17
Atlanta	14	2	12	2	10	16	1	15	2	13
Austin	50	4	46	17	29	50	3	47	13	34
Baltimore City	22	1	20	2	19	23	2	21	2	18
Boston	49	3	45	19	26	48	3	45	21	24
Charlotte	19	2	18	7	11	19	2	16	6	10
Chicago	25	2	23	6	16	29	3	27	7	20
Clark County (NV)	—	—	—	—	—	28	1	26	19	8
Cleveland	29	6	23	2	21	31	6	25	5	20
Dallas	56	4	53	29	24	60	4	56	23	33
Denver	—	—	—	—	—	46	3	43	33	11
Detroit	28	5	24	16	8	31	5	26	17	9
District of Columbia (DCPS)	20	2	17	2	15	23	3	20	5	16
Duval County (FL)	21	4	17	2	15	22	3	19	3	15
Fort Worth	—	—	—	—	—	52	4	48	33	16
Fresno	34	1	33	25	7	32	1	31	26	6
Guilford County (NC)	—	—	—	—	—	20	2	18	9	9
Hillsborough County (FL)	28	2	26	2	24	26	2	24	2	22
Houston	48	3	45	16	28	47	2	44	19	25
Jefferson County (KY)	20	2	18	7	11	20	2	18	6	12
Los Angeles	37	2	35	25	10	35	2	33	27	6
Miami-Dade	29	4	25	#	25	26	4	23	2	21
Milwaukee	—	—	—	—	—	32	3	29	7	21
New York City	32	2	31	1	30	31	2	29	3	25
Philadelphia	24	5	19	3	16	26	5	21	5	15
San Diego	46	3	42	35	8	41	2	38	28	10
Shelby County (TN)	—	—	—	—	—	18	4	15	4	11

See notes at end of table.

Table A-31. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2019					2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	27	2	25	10	15	29	2	27	12	15
Large City ¹ (public)	33	3	30	13	17	36	3	34	15	19
Albuquerque	39	2	37	15	22	40	1	39	20	19
Atlanta	21	1	20	2	18	17	1	16	4	13
Austin	52	3	49	14	35	54	3	51	21	30
Baltimore City	25	2	23	2	21	33	1	32	6	26
Boston	50	4	46	21	25	49	6	44	24	19
Charlotte	27	2	25	14	11	33	2	31	18	13
Chicago	36	2	34	11	23	39	3	37	13	23
Clark County (NV)	32	2	31	20	11	33	1	32	26	6
Cleveland	31	4	27	5	23	29	3	27	2	24
Dallas	59	3	55	30	26	66	4	62	23	38
Denver	45	2	44	29	15	47	2	44	29	15
Detroit	29	5	24	17	7	25	4	21	14	8
District of Columbia (DCPS)	30	2	28	2	26	35	3	32	2	30
Duval County (FL)	27	2	25	2	23	30	2	28	4	24
Fort Worth	54	2	52	36	16	56	2	54	36	18
Fresno	33	2	31	25	6	—	—	—	—	—
Guilford County (NC)	27	1	25	10	16	27	1	26	11	15
Hillsborough County (FL)	30	3	27	3	24	30	3	27	4	23
Houston	48	2	45	23	22	55	3	52	30	23
Jefferson County (KY)	25	3	22	6	17	32	4	28	6	22
Los Angeles	31	2	29	19	10	33	2	31	21	11
Miami-Dade	32	4	29	2	27	30	3	27	2	25
Milwaukee	32	2	30	6	24	36	1	34	12	22
New York City	35	4	31	5	26	36	1	35	7	28
Philadelphia	30	6	24	10	14	33	4	29	8	21
San Diego	38	2	36	22	14	35	3	32	20	12
Shelby County (TN)	19	2	17	5	12	22	4	18	4	15

— Not available.

Rounds to zero.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–22 Mathematics Assessments.

Table A-32. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22

Urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	19	4	15	8	7	19	4	15	7	8
Large City ¹ (public)	24	5	19	13	7	24	4	20	12	8
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	11	2	9	4	5	12	1	10	3	8
Austin	—	—	—	—	—	26	10	16	12	4
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	31	7	24	9	15	25	9	16	7	9
Charlotte	18	3	14	5	9	18	3	15	5	10
Chicago	22	7	15	8	7	21	3	18	5	12
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	21	9	12	2	9	20	9	12	3	9
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	20	6	14	5	9	19	6	14	2	11
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	26	8	18	16	3	24	6	18	14	4
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	37	2	35	29	6	39	3	36	30	6
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	24	5	19	6	14	20	2	18	2	16
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	29	4	26	22	4	28	4	24	17	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-32. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	18	4	14	6	8	18	3	15	5	10
Large City ¹ (public)	23	4	19	10	9	23	3	20	9	11
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	11	3	8	2	6	12	1	10	1	9
Austin	29	5	23	16	8	29	7	23	13	9
Baltimore City	—	—	—	—	—	19	11	8	1	6
Boston	27	8	18	6	12	30	9	20	5	16
Charlotte	20	3	18	6	12	17	3	14	5	10
Chicago	23	6	17	5	12	21	4	17	3	13
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	24	13	11	2	9	28	11	17	2	15
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	23	5	18	7	11
District of Columbia (DCPS)	21	10	11	3	8	23	7	16	3	14
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	29	2	27	20	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	22	6	16	10	6	22	5	16	9	8
Jefferson County (KY)	—	—	—	—	—	15	4	11	4	7
Los Angeles	33	2	31	25	6	29	2	27	19	8
Miami-Dade	—	—	—	—	—	20	3	17	1	16
Milwaukee	—	—	—	—	—	26	4	22	2	20
New York City	22	2	20	1	19	23	2	21	1	20
Philadelphia	—	—	—	—	—	22	6	17	2	14
San Diego	28	4	24	19	5	25	5	20	15	5
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-32. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	18	3	15	5	10	17	2	16	3	12
Large City ¹ (public)	23	3	20	8	12	22	2	20	5	15
Albuquerque	25	3	22	9	12	27	2	25	11	14
Atlanta	12	2	10	1	8	14	1	13	2	11
Austin	26	5	22	13	9	27	2	25	4	21
Baltimore City	21	12	8	1	7	22	2	20	1	20
Boston	36	6	30	11	19	37	3	34	14	21
Charlotte	17	1	16	4	11	17	1	16	6	10
Chicago	23	3	20	4	16	20	1	19	2	17
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	31	6	25	1	24	32	3	29	1	28
Dallas	29	5	24	18	6	29	2	26	8	18
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	26	8	18	10	8	28	4	24	9	15
District of Columbia (DCPS)	26	7	20	1	18	25	2	23	1	22
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	24	1	23	16	7	21	2	20	13	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	24	2	22	1	21	22	1	21	#	20
Houston	23	6	18	12	5	25	2	22	8	15
Jefferson County (KY)	15	3	12	3	8	16	2	14	2	13
Los Angeles	26	1	24	15	9	21	2	20	9	11
Miami-Dade	20	2	18	#	18	22	2	19	1	19
Milwaukee	33	5	28	3	25	31	4	27	1	26
New York City	26	1	25	#	24	28	2	26	#	26
Philadelphia	26	7	19	1	18	26	4	22	1	21
San Diego	24	3	21	13	8	24	2	22	10	12
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-32. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	19	2	17	5	13	20	2	18	6	12
Large City ¹ (public)	24	2	21	7	15	25	3	22	9	13
Albuquerque	27	1	26	12	14	26	2	24	9	16
Atlanta	14	1	12	1	11	15	1	14	3	11
Austin	29	3	26	8	18	33	2	31	9	22
Baltimore City	26	3	22	1	22	22	2	20	1	19
Boston	38	4	34	7	27	39	5	34	12	23
Charlotte	16	1	14	4	10	18	2	16	9	6
Chicago	21	1	20	3	18	21	2	19	4	15
Clark County (NV)	—	—	—	—	—	24	2	22	15	7
Cleveland	32	5	27	2	25	33	6	28	6	21
Dallas	41	3	38	17	21	53	3	50	23	27
Denver	—	—	—	—	—	39	3	36	27	9
Detroit	32	5	27	14	13	35	6	29	19	9
District of Columbia (DCPS)	28	5	22	2	21	26	3	23	3	20
Duval County (FL)	16	2	13	2	12	18	3	15	3	13
Fort Worth	—	—	—	—	—	30	2	28	15	12
Fresno	26	2	24	16	8	21	2	19	13	6
Guilford County (NC)	—	—	—	—	—	20	1	18	6	12
Hillsborough County (FL)	25	2	23	1	22	25	2	23	1	21
Houston	27	4	23	6	17	28	4	24	10	14
Jefferson County (KY)	17	1	15	2	14	14	1	12	3	10
Los Angeles	22	3	20	8	12	22	3	19	12	7
Miami-Dade	22	3	19	#	19	23	3	20	2	18
Milwaukee	—	—	—	—	—	30	4	26	4	22
New York City	26	2	24	1	24	30	2	27	3	24
Philadelphia	24	3	21	3	18	27	5	22	6	15
San Diego	24	2	22	14	7	22	2	20	13	7
Shelby County (TN)	—	—	—	—	—	20	2	17	2	15

See notes at end of table.

Table A-32. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2019					2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	21	2	19	6	13	24	2	22	8	14
Large City ¹ (public)	25	2	24	8	16	29	2	27	12	15
Albuquerque	30	2	28	13	15	40	2	38	22	16
Atlanta	18	1	16	1	15	21	1	21	1	19
Austin	35	2	34	11	23	41	2	39	14	25
Baltimore City	25	2	24	1	22	25	3	23	1	21
Boston	39	5	34	10	24	38	6	32	12	20
Charlotte	17	2	15	6	9	24	3	21	10	12
Chicago	24	1	22	4	18	32	1	31	6	25
Clark County (NV)	23	1	22	14	8	21	1	20	12	7
Cleveland	32	5	27	4	23	31	4	28	6	22
Dallas	54	2	51	34	17	60	2	57	35	22
Denver	33	1	32	20	12	37	3	34	21	13
Detroit	31	6	25	11	14	33	5	28	16	12
District of Columbia (DCPS)	27	2	24	1	23	32	4	28	#	28
Duval County (FL)	21	3	18	2	17	25	2	23	2	21
Fort Worth	34	1	33	21	12	51	2	49	35	14
Fresno	23	1	22	13	9	—	—	—	—	—
Guilford County (NC)	16	1	16	3	12	23	2	21	6	15
Hillsborough County (FL)	27	1	26	2	24	25	2	23	2	21
Houston	30	2	28	16	12	40	3	37	22	16
Jefferson County (KY)	17	2	15	2	13	21	1	20	5	15
Los Angeles	22	2	20	11	9	24	2	21	12	10
Miami-Dade	25	2	23	1	22	24	4	21	2	18
Milwaukee	31	3	28	3	25	33	2	31	7	23
New York City	30	1	29	2	27	29	1	28	3	25
Philadelphia	28	5	23	7	16	32	4	27	6	21
San Diego	22	2	20	12	8	27	2	25	12	12
Shelby County (TN)	17	2	15	3	12	14	3	12	2	9

— Not available.

Rounds to zero.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–22 Mathematics Assessments.

Table A-33. Percentage of fourth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22

Urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	3	11	4	7	14	3	11	4	8
Large City ¹ (public)	13	3	9	4	6	13	3	10	3	7
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	8	1	7	3	4	9	1	8	2	6
Austin	—	—	—	—	—	15	7	8	2	6
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	20	3	16	4	12	22	5	17	3	14
Charlotte	17	3	14	3	10	13	2	11	3	8
Chicago	15	5	10	4	6	13	4	10	3	7
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	12	5	6	2	5	13	5	8	1	8
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	13	4	10	2	7	16	5	11	2	8
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	18	7	11	8	3	12	5	7	3	4
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	11	2	9	5	4	11	3	8	3	5
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	12	1	12	1	10	14	2	11	1	11
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	11	1	10	7	3	11	2	9	4	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-33. Percentage of fourth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	3	11	3	8	13	2	11	3	8
Large City ¹ (public)	13	3	10	3	7	13	2	11	2	9
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	10	2	8	4	5	10	1	9	3	6
Austin	13	4	9	2	7	16	4	12	2	10
Baltimore City	—	—	—	—	—	17	8	9	1	8
Boston	22	4	18	3	15	22	5	17	3	15
Charlotte	12	2	10	2	8	12	2	11	2	9
Chicago	14	4	10	4	6	14	3	12	3	8
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	17	13	5	#	4	20	10	10	#	10
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	15	3	12	3	8
District of Columbia (DCPS)	14	5	9	1	8	15	4	10	2	9
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	11	3	7	3	5
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	10	3	7	2	4	7	2	5	1	4
Jefferson County (KY)	—	—	—	—	—	15	3	13	5	8
Los Angeles	11	1	9	4	5	10	1	9	3	7
Miami-Dade	—	—	—	—	—	13	2	11	1	10
Milwaukee	—	—	—	—	—	19	6	13	1	12
New York City	16	1	15	1	14	19	1	18	1	17
Philadelphia	—	—	—	—	—	15	4	11	2	9
San Diego	12	2	9	4	5	13	3	10	4	6
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-33. Percentage of fourth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	13	2	11	3	9	14	1	12	2	10
Large City ¹ (public)	13	2	11	2	9	13	1	12	1	10
Albuquerque	15	2	13	2	11	16	1	15	2	14
Atlanta	9	1	8	1	7	10	1	9	1	8
Austin	15	3	12	2	10	15	2	13	1	12
Baltimore City	19	11	8	1	6	18	1	17	1	16
Boston	21	3	18	2	16	21	3	18	1	17
Charlotte	11	1	10	2	8	11	1	10	1	9
Chicago	15	2	13	3	10	13	1	12	1	11
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	22	5	17	1	16	22	4	18	1	17
Dallas	8	2	6	1	5	10	2	8	1	7
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	15	6	9	3	6	16	5	11	3	8
District of Columbia (DCPS)	16	5	10	#	10	15	1	14	1	13
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	10	1	9	2	7	9	1	8	1	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	17	1	16	2	14	19	1	18	2	16
Houston	8	3	5	1	4	8	1	7	1	7
Jefferson County (KY)	15	3	12	4	8	13	1	12	4	9
Los Angeles	12	2	10	1	9	9	2	8	1	7
Miami-Dade	12	2	10	1	10	11	1	10	1	8
Milwaukee	20	3	18	2	16	20	3	17	2	16
New York City	17	1	16	1	15	18	#	17	1	17
Philadelphia	16	4	12	1	11	16	3	13	1	12
San Diego	11	2	9	1	7	11	1	10	1	8
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-33. Percentage of fourth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	1	13	3	11	15	2	13	4	9
Large City ¹ (public)	14	2	13	2	11	14	1	13	3	10
Albuquerque	17	1	15	2	13	17	1	16	5	11
Atlanta	10	1	9	1	8	13	1	12	2	11
Austin	17	2	15	2	13	19	2	17	2	16
Baltimore City	17	1	16	1	15	17	1	16	1	14
Boston	22	3	19	#	19	21	2	19	2	18
Charlotte	10	1	9	2	8	11	1	10	2	8
Chicago	14	2	12	1	12	16	2	14	1	13
Clark County (NV)	—	—	—	—	—	11	1	10	6	4
Cleveland	21	5	17	1	16	22	4	18	2	16
Dallas	8	2	6	1	6	10	2	8	1	7
Denver	—	—	—	—	—	11	1	10	5	5
Detroit	15	4	11	3	8	15	4	11	3	8
District of Columbia (DCPS)	13	1	12	#	12	15	2	14	2	12
Duval County (FL)	17	3	14	2	12	17	2	14	3	12
Fort Worth	—	—	—	—	—	13	2	11	3	8
Fresno	10	1	8	2	6	10	1	9	4	5
Guilford County (NC)	—	—	—	—	—	16	2	14	7	7
Hillsborough County (FL)	20	2	18	2	16	17	1	16	2	14
Houston	10	2	8	1	7	8	2	6	1	5
Jefferson County (KY)	13	1	11	4	7	14	1	12	4	8
Los Angeles	13	2	11	2	9	12	1	11	6	5
Miami-Dade	10	2	9	#	8	11	1	10	1	9
Milwaukee	—	—	—	—	—	18	2	16	4	12
New York City	22	1	22	1	21	21	1	20	2	18
Philadelphia	16	4	12	1	11	17	4	13	2	11
San Diego	12	3	10	3	7	13	1	12	4	7
Shelby County (TN)	—	—	—	—	—	11	3	8	3	5

See notes at end of table.

Table A-33. Percentage of fourth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2019					2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	16	2	14	3	11	16	1	15	4	11
Large City ¹ (public)	15	2	13	3	11	17	2	15	4	12
Albuquerque	21	1	20	7	13	22	#	21	6	15
Atlanta	16	1	15	1	14	13	1	12	1	11
Austin	23	2	21	1	20	24	2	22	3	19
Baltimore City	17	#	16	1	15	16	1	15	1	13
Boston	23	2	21	3	18	21	4	17	4	13
Charlotte	11	2	10	2	8	11	1	10	3	7
Chicago	15	1	13	1	12	14	2	12	2	10
Clark County (NV)	11	1	10	5	6	13	1	12	8	4
Cleveland	22	3	19	2	17	21	2	18	1	17
Dallas	14	3	11	1	10	18	3	15	#	15
Denver	12	1	11	3	8	13	1	12	4	9
Detroit	14	4	10	5	6	13	4	9	2	7
District of Columbia (DCPS)	17	2	16	#	15	17	2	16	1	15
Duval County (FL)	22	2	20	1	19	23	2	21	3	18
Fort Worth	15	2	13	4	9	19	2	17	3	13
Fresno	12	2	10	4	6	—	—	—	—	—
Guilford County (NC)	15	1	14	4	10	13	1	12	3	8
Hillsborough County (FL)	21	2	19	2	17	20	2	18	4	14
Houston	9	2	8	1	7	11	3	8	1	7
Jefferson County (KY)	14	2	12	3	9	15	2	12	3	10
Los Angeles	13	1	11	4	7	12	1	11	3	8
Miami-Dade	14	2	13	1	12	15	1	13	1	13
Milwaukee	22	2	20	3	17	20	1	19	4	15
New York City	24	3	21	3	18	22	#	22	3	19
Philadelphia	17	4	13	3	10	20	3	17	2	15
San Diego	16	2	14	3	11	16	1	15	5	10
Shelby County (TN)	9	2	8	3	5	11	2	8	2	7

— Not available.

Rounds to zero.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–22 Mathematics Assessments.

Table A-34. Percentage of eighth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22

Urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	14	3	11	5	6	13	3	10	3	7
Large City ¹ (public)	14	3	11	5	5	13	3	10	3	6
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	10	1	9	4	5	11	1	9	3	7
Austin	—	—	—	—	—	14	8	6	5	2
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	24	4	20	7	13	18	7	11	3	8
Charlotte	14	3	12	4	8	12	2	10	2	8
Chicago	17	5	12	6	7	16	2	14	3	11
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	17	9	8	1	6	18	8	9	3	7
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	16	5	11	3	8	17	5	12	2	10
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	16	7	10	9	#	11	4	7	5	2
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	12	2	10	5	5	12	2	10	5	5
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	15	2	13	3	10	12	1	11	1	10
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	11	1	10	7	3	11	3	8	4	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-34. Percentage of eighth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	13	4	9	2	6	13	3	10	2	8
Large City ¹ (public)	13	4	9	3	6	13	3	10	2	9
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	11	3	7	2	5	11	1	10	1	9
Austin	16	4	12	7	5	17	6	10	3	7
Baltimore City	—	—	—	—	—	18	11	7	1	5
Boston	19	7	12	3	9	22	7	15	3	12
Charlotte	13	2	11	2	10	11	2	9	1	7
Chicago	17	5	13	3	10	16	3	13	1	11
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	20	13	7	1	6	23	11	12	1	11
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	17	4	13	2	10
District of Columbia (DCPS)	17	9	8	2	6	19	6	12	1	11
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	11	2	9	2	6
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	13	5	8	4	4	12	5	7	2	6
Jefferson County (KY)	—	—	—	—	—	12	3	9	3	6
Los Angeles	10	2	8	3	5	11	2	10	3	7
Miami-Dade	—	—	—	—	—	12	2	11	#	10
Milwaukee	—	—	—	—	—	21	3	17	1	16
New York City	13	1	12	1	11	15	1	14	#	13
Philadelphia	—	—	—	—	—	17	5	11	1	10
San Diego	11	4	7	3	4	12	5	7	2	5
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-34. Percentage of eighth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	13	2	10	2	9	13	1	12	1	10
Large City ¹ (public)	13	3	11	2	9	14	1	12	1	11
Albuquerque	15	3	13	3	9	16	1	15	4	11
Atlanta	11	2	8	1	7	12	1	11	2	10
Austin	13	4	10	2	8	15	2	14	1	13
Baltimore City	19	12	7	1	6	20	2	18	#	18
Boston	20	4	15	1	15	20	2	17	1	17
Charlotte	11	1	10	1	8	11	1	10	2	8
Chicago	18	3	15	2	13	15	1	14	1	14
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	25	5	19	1	19	26	2	24	#	24
Dallas	9	4	5	1	4	9	2	7	#	7
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	18	8	10	2	8	18	4	14	1	13
District of Columbia (DCPS)	20	5	15	1	14	18	1	17	#	17
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	9	1	8	2	6	10	2	8	1	7
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	16	2	14	1	14	15	1	14	#	14
Houston	12	5	7	3	4	10	2	8	1	7
Jefferson County (KY)	11	2	9	2	7	12	2	10	#	10
Los Angeles	12	1	11	2	9	12	1	11	1	10
Miami-Dade	11	1	10	#	10	10	1	9	1	9
Milwaukee	21	5	16	1	15	24	4	20	#	20
New York City	17	1	16	#	16	17	1	16	#	16
Philadelphia	17	6	11	#	11	20	3	17	1	16
San Diego	14	3	11	4	7	14	2	12	3	9
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-34. Percentage of eighth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	13	1	12	1	11	14	1	13	3	10
Large City ¹ (public)	14	1	12	1	11	14	2	12	3	10
Albuquerque	17	1	16	4	11	19	2	17	5	12
Atlanta	12	1	11	1	10	13	1	12	3	9
Austin	16	1	14	1	14	17	1	15	1	14
Baltimore City	20	1	19	#	19	19	2	18	1	17
Boston	20	3	16	1	16	20	4	16	1	16
Charlotte	9	1	9	1	8	10	1	10	5	5
Chicago	16	1	15	1	14	15	1	14	1	13
Clark County (NV)	—	—	—	—	—	10	1	9	4	5
Cleveland	26	4	22	1	21	24	5	19	2	18
Dallas	10	2	8	#	8	11	2	9	1	8
Denver	—	—	—	—	—	12	2	10	4	6
Detroit	19	5	14	1	13	18	5	13	4	9
District of Columbia (DCPS)	20	2	18	#	18	18	1	16	2	14
Duval County (FL)	12	1	10	1	9	14	2	12	2	10
Fort Worth	—	—	—	—	—	11	2	9	1	8
Fresno	11	1	9	2	7	10	2	9	2	6
Guilford County (NC)	—	—	—	—	—	16	1	15	4	11
Hillsborough County (FL)	17	1	16	1	16	17	2	15	1	14
Houston	11	2	9	1	8	10	2	7	1	6
Jefferson County (KY)	12	1	11	1	10	10	1	9	1	8
Los Angeles	14	2	12	2	10	13	2	12	6	6
Miami-Dade	10	1	9	#	9	11	1	10	1	9
Milwaukee	—	—	—	—	—	22	4	19	3	16
New York City	19	1	18	#	18	19	1	18	2	16
Philadelphia	18	3	15	1	14	18	4	15	2	13
San Diego	12	2	10	4	6	12	1	11	5	6
Shelby County (TN)	—	—	—	—	—	16	2	14	1	13

See notes at end of table.

Table A-34. Percentage of eighth-grade public school students identified as students with disabilities (SD) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2019					2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	15	1	13	2	11	15	1	14	2	12
Large City ¹ (public)	14	1	13	2	11	15	1	13	3	11
Albuquerque	20	2	19	6	13	24	1	23	9	14
Atlanta	16	1	15	1	14	18	1	17	1	16
Austin	18	1	17	1	16	21	1	20	2	18
Baltimore City	20	1	20	1	19	20	2	18	#	17
Boston	20	3	18	1	17	22	4	18	3	15
Charlotte	9	1	8	2	7	11	2	10	1	8
Chicago	16	1	15	1	15	17	1	16	1	15
Clark County (NV)	11	1	10	4	6	10	1	9	3	6
Cleveland	23	4	18	1	17	23	3	21	2	18
Dallas	11	1	9	2	8	14	2	12	1	11
Denver	11	1	10	2	9	15	2	13	3	10
Detroit	19	6	13	1	11	17	4	12	1	11
District of Columbia (DCPS)	18	1	17	1	16	21	2	19	#	18
Duval County (FL)	16	2	14	1	13	20	2	18	1	17
Fort Worth	11	1	10	3	7	15	2	13	2	11
Fresno	12	1	11	2	8	—	—	—	—	—
Guilford County (NC)	13	1	12	2	10	13	2	12	1	10
Hillsborough County (FL)	19	1	18	2	16	20	1	19	2	17
Houston	9	1	8	1	7	10	1	9	#	8
Jefferson County (KY)	11	1	10	1	10	13	1	11	1	10
Los Angeles	13	1	12	4	8	13	2	12	4	8
Miami-Dade	12	1	11	#	11	14	2	12	1	11
Milwaukee	22	3	19	1	18	18	2	16	2	14
New York City	21	#	20	1	19	21	#	20	1	19
Philadelphia	18	3	14	2	13	19	3	16	2	13
San Diego	14	2	13	6	6	16	1	15	4	11
Shelby County (TN)	12	2	10	2	9	9	3	7	#	7

— Not available.

Rounds to zero.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–22 Mathematics Assessments.

Table A-35. Percentage of fourth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22

Urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	11	1	9	7	2	10	1	9	7	3
Large City ¹ (public)	21	3	18	14	4	21	2	19	14	5
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	2	#	2	1	#	2	#	2	1	1
Austin	—	—	—	—	—	25	5	20	11	9
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	18	3	15	8	7	15	3	12	9	3
Charlotte	8	2	6	2	4	10	1	8	4	4
Chicago	20	5	15	13	2	18	2	16	12	4
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	4	1	2	1	1	4	1	3	2	2
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	7	1	5	2	3	5	1	4	1	2
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	35	4	31	14	17	37	4	33	15	18
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	56	2	53	47	6	54	4	50	45	5
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	13	6	7	3	4	12	3	9	1	8
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	34	2	32	30	2	36	3	33	30	3
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-35. Percentage of fourth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	11	1	10	7	3	10	1	10	6	4
Large City ¹ (public)	22	1	21	14	6	20	1	19	12	7
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	3	#	2	#	2	2	#	2	#	2
Austin	29	2	27	15	12	32	2	30	18	12
Baltimore City	—	—	—	—	—	2	#	2	#	2
Boston	31	2	28	22	6	18	2	16	11	4
Charlotte	11	2	10	5	5	8	1	7	2	5
Chicago	20	2	18	13	5	12	2	10	4	6
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	7	1	5	1	4	7	2	5	1	4
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	6	#	6	4	2
District of Columbia (DCPS)	8	2	6	1	5	8	1	7	1	6
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	30	1	29	27	1
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	38	2	36	21	15	38	2	36	21	15
Jefferson County (KY)	—	—	—	—	—	4	1	2	1	2
Los Angeles	48	1	47	42	5	41	1	40	36	4
Miami-Dade	—	—	—	—	—	9	1	8	1	7
Milwaukee	—	—	—	—	—	12	2	10	1	9
New York City	17	2	15	1	13	16	1	15	1	14
Philadelphia	—	—	—	—	—	8	1	7	#	7
San Diego	40	1	38	34	4	35	1	34	30	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-35. Percentage of fourth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	11	#	11	6	4	11	#	11	5	5
Large City ¹ (public)	22	1	21	12	9	20	1	20	9	10
Albuquerque	18	1	17	6	11	20	1	19	8	11
Atlanta	2	#	2	#	2	3	#	3	#	3
Austin	33	2	32	23	9	34	1	34	11	22
Baltimore City	2	#	2	#	2	4	#	4	#	4
Boston	36	3	34	28	6	36	1	35	26	9
Charlotte	10	#	10	6	5	8	1	8	2	5
Chicago	18	1	17	4	13	15	1	14	2	12
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	7	1	6	#	6	8	1	7	#	7
Dallas	50	1	48	44	4	52	1	51	19	32
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	12	#	12	11	1	17	1	16	9	7
District of Columbia (DCPS)	8	1	7	1	6	8	1	7	1	7
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	30	#	30	27	3	27	#	27	24	3
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	17	1	16	#	16	10	#	10	#	10
Houston	38	2	36	25	11	40	1	39	16	23
Jefferson County (KY)	5	3	2	1	1	5	1	5	1	4
Los Angeles	34	1	33	27	6	28	1	27	21	6
Miami-Dade	17	1	16	#	15	25	2	23	#	23
Milwaukee	15	#	15	1	13	14	1	13	#	13
New York City	17	1	16	1	15	16	1	15	#	15
Philadelphia	8	#	7	1	6	8	1	7	1	5
San Diego	36	1	35	31	4	33	1	32	25	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-35. Percentage of fourth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	12	1	11	6	5	12	1	11	7	5
Large City ¹ (public)	21	1	20	11	9	21	1	19	10	9
Albuquerque	21	1	20	6	14	18	1	17	8	9
Atlanta	4	#	4	1	3	3	#	3	1	3
Austin	38	2	36	16	19	36	2	34	12	22
Baltimore City	5	#	4	#	4	7	1	6	1	5
Boston	33	1	32	19	13	34	2	32	20	12
Charlotte	11	1	10	5	5	9	1	8	5	3
Chicago	15	1	13	6	7	18	2	16	6	10
Clark County (NV)	—	—	—	—	—	20	1	19	14	6
Cleveland	10	2	8	1	7	11	2	9	3	5
Dallas	51	2	48	28	20	54	3	51	22	29
Denver	—	—	—	—	—	39	2	37	30	7
Detroit	14	#	13	13	#	16	1	16	14	2
District of Columbia (DCPS)	8	1	7	2	5	10	1	8	3	5
Duval County (FL)	5	1	4	#	3	6	1	5	1	4
Fort Worth	—	—	—	—	—	43	1	41	31	11
Fresno	27	1	27	24	3	25	#	24	22	2
Guilford County (NC)	—	—	—	—	—	6	#	5	2	3
Hillsborough County (FL)	12	#	12	#	12	12	1	11	#	11
Houston	41	1	40	16	24	41	1	40	19	22
Jefferson County (KY)	9	1	8	3	5	8	1	7	2	5
Los Angeles	31	1	30	24	6	30	2	28	24	4
Miami-Dade	22	3	20	#	19	18	3	15	1	15
Milwaukee	—	—	—	—	—	16	1	15	4	11
New York City	14	1	13	#	13	15	1	14	2	12
Philadelphia	10	1	9	2	6	11	1	9	3	6
San Diego	39	2	37	33	4	33	1	32	25	7
Shelby County (TN)	—	—	—	—	—	9	1	7	1	6

See notes at end of table.

Table A-35. Percentage of fourth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2019					2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	13	1	12	7	6	15	1	14	8	5
Large City ¹ (public)	21	1	20	11	9	23	1	22	12	10
Albuquerque	23	1	22	10	13	22	#	22	15	7
Atlanta	7	1	6	1	5	5	#	4	2	2
Austin	36	1	34	13	22	36	2	35	19	16
Baltimore City	9	1	8	1	7	19	1	18	4	14
Boston	35	2	33	19	13	37	4	33	22	11
Charlotte	18	1	17	13	4	25	2	23	16	7
Chicago	25	1	24	11	14	29	1	28	12	16
Clark County (NV)	23	1	23	16	6	23	1	22	19	3
Cleveland	11	#	10	3	7	11	#	10	1	9
Dallas	51	2	49	30	20	56	2	54	23	31
Denver	38	1	37	26	10	39	2	37	27	10
Detroit	16	1	15	12	2	14	#	14	12	2
District of Columbia (DCPS)	16	1	15	2	13	21	2	19	1	18
Duval County (FL)	6	#	5	#	5	8	#	8	1	7
Fort Worth	44	1	44	33	10	44	1	44	34	10
Fresno	25	1	25	22	3	—	—	—	—	—
Guilford County (NC)	13	#	13	6	7	17	#	17	7	10
Hillsborough County (FL)	11	1	10	#	10	12	1	11	#	11
Houston	41	1	40	23	17	48	1	47	29	18
Jefferson County (KY)	13	1	11	3	8	19	1	18	4	14
Los Angeles	25	1	23	17	6	26	1	25	19	6
Miami-Dade	23	2	21	1	20	20	2	18	2	16
Milwaukee	13	1	12	3	9	19	1	18	8	10
New York City	16	2	14	3	12	18	1	17	5	12
Philadelphia	15	2	13	8	5	15	1	14	5	8
San Diego	29	1	28	20	8	24	2	22	16	6
Shelby County (TN)	10	1	10	2	8	12	1	11	2	9

— Not available.

Rounds to zero.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–22 Mathematics Assessments.

Table A-36. Percentage of eighth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22

Urban district/jurisdiction	2003					2005				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	6	1	5	4	1	6	1	5	4	1
Large City ¹ (public)	13	2	11	9	3	13	2	12	9	3
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	2	1	1	1	#	1	#	1	#	1
Austin	—	—	—	—	—	14	4	10	8	2
Baltimore City	—	—	—	—	—	—	—	—	—	—
Boston	13	5	8	4	4	10	4	6	5	1
Charlotte	7	1	6	3	3	7	1	6	4	2
Chicago	8	3	5	3	2	6	2	5	2	2
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	5	1	4	1	3	3	1	2	#	2
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	—	—	—	—	—
District of Columbia (DCPS)	5	1	4	2	2	4	1	3	1	2
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	—	—	—	—	—
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	16	5	11	9	2	15	3	12	10	3
Jefferson County (KY)	—	—	—	—	—	—	—	—	—	—
Los Angeles	33	2	31	27	4	34	2	32	28	4
Miami-Dade	—	—	—	—	—	—	—	—	—	—
Milwaukee	—	—	—	—	—	—	—	—	—	—
New York City	13	4	9	3	6	10	2	9	2	7
Philadelphia	—	—	—	—	—	—	—	—	—	—
San Diego	23	3	20	18	2	21	3	18	14	4
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-36. Percentage of eighth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2007					2009				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	7	1	6	4	2	6	#	5	3	2
Large City ¹ (public)	13	1	11	7	4	12	1	11	7	4
Albuquerque	—	—	—	—	—	—	—	—	—	—
Atlanta	1	#	1	#	1	1	#	1	#	#
Austin	16	2	13	10	3	16	2	14	10	4
Baltimore City	—	—	—	—	—	1	#	1	#	1
Boston	9	2	7	4	3	11	4	7	2	5
Charlotte	9	1	7	4	3	7	1	6	3	3
Chicago	7	2	5	2	3	7	2	5	2	3
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	5	1	4	1	3	6	1	5	1	4
Dallas	—	—	—	—	—	—	—	—	—	—
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	—	—	—	—	—	6	#	6	5	1
District of Columbia (DCPS)	4	1	3	1	2	6	2	4	2	2
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	—	—	—	—	—	22	1	21	19	2
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	—	—	—	—	—	—	—	—	—	—
Houston	12	2	10	7	2	12	2	10	7	3
Jefferson County (KY)	—	—	—	—	—	3	1	2	1	2
Los Angeles	28	1	27	23	4	23	1	22	18	4
Miami-Dade	—	—	—	—	—	8	1	7	#	6
Milwaukee	—	—	—	—	—	7	1	5	1	4
New York City	11	1	10	1	9	10	1	9	#	9
Philadelphia	—	—	—	—	—	6	#	6	1	5
San Diego	21	2	19	17	3	16	1	15	13	2
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-36. Percentage of eighth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2011					2013				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	6	#	6	3	2	6	#	5	2	3
Large City ¹ (public)	12	1	11	6	5	11	1	10	4	6
Albuquerque	13	2	11	6	5	14	#	14	8	7
Atlanta	2	#	2	#	1	2	#	2	#	2
Austin	16	2	14	11	3	15	1	15	3	11
Baltimore City	2	1	1	#	1	2	#	2	#	2
Boston	21	3	18	11	7	23	1	22	13	9
Charlotte	8	#	7	3	4	8	#	8	4	3
Chicago	7	1	6	2	4	7	1	7	1	6
Clark County (NV)	—	—	—	—	—	—	—	—	—	—
Cleveland	8	1	7	1	6	7	1	7	#	6
Dallas	24	2	22	18	4	22	1	21	8	13
Denver	—	—	—	—	—	—	—	—	—	—
Detroit	9	#	9	8	1	10	#	10	7	3
District of Columbia (DCPS)	7	1	6	1	5	8	1	7	1	6
Duval County (FL)	—	—	—	—	—	—	—	—	—	—
Fort Worth	—	—	—	—	—	—	—	—	—	—
Fresno	19	#	19	16	3	15	1	14	12	2
Guilford County (NC)	—	—	—	—	—	—	—	—	—	—
Hillsborough County (FL)	9	#	9	#	9	8	#	8	#	8
Houston	14	2	12	10	3	17	1	16	7	9
Jefferson County (KY)	4	1	3	2	1	4	#	4	1	3
Los Angeles	19	1	19	14	5	15	1	14	8	5
Miami-Dade	10	1	9	#	9	12	1	11	#	11
Milwaukee	14	1	13	2	12	9	1	8	1	8
New York City	12	1	12	#	12	15	1	14	#	14
Philadelphia	10	1	9	#	8	8	1	7	#	7
San Diego	16	1	15	11	4	15	1	14	8	7
Shelby County (TN)	—	—	—	—	—	—	—	—	—	—

See notes at end of table.

Table A-36. Percentage of eighth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2015					2017				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	7	#	6	3	3	7	1	6	3	3
Large City ¹ (public)	12	1	11	5	6	13	1	12	6	5
Albuquerque	15	#	15	8	6	12	1	11	5	7
Atlanta	2	#	2	#	2	2	#	2	#	1
Austin	17	2	15	8	7	20	2	19	8	11
Baltimore City	6	2	3	#	3	3	1	3	1	2
Boston	25	2	23	7	16	25	2	23	11	12
Charlotte	7	1	7	3	3	8	1	7	5	2
Chicago	9	1	8	2	7	9	1	8	3	4
Clark County (NV)	—	—	—	—	—	17	1	16	12	4
Cleveland	8	1	7	2	5	10	1	9	4	5
Dallas	33	1	32	17	15	46	1	45	23	23
Denver	—	—	—	—	—	32	2	30	25	5
Detroit	15	1	14	13	1	18	1	17	16	1
District of Columbia (DCPS)	9	4	5	1	4	10	2	8	1	7
Duval County (FL)	4	1	3	#	3	5	1	4	#	4
Fort Worth	—	—	—	—	—	23	#	22	15	8
Fresno	19	1	18	15	3	14	1	13	11	2
Guilford County (NC)	—	—	—	—	—	6	#	5	2	3
Hillsborough County (FL)	10	1	9	#	9	10	1	9	1	8
Houston	18	2	16	5	11	19	1	18	9	9
Jefferson County (KY)	5	#	5	1	4	4	#	4	2	2
Los Angeles	14	1	12	6	6	14	3	12	8	4
Miami-Dade	14	2	12	#	12	14	2	12	1	10
Milwaukee	—	—	—	—	—	10	1	10	2	8
New York City	10	1	9	#	8	13	2	12	1	10
Philadelphia	7	1	7	2	5	10	2	8	5	4
San Diego	17	1	16	12	4	14	1	12	9	3
Shelby County (TN)	—	—	—	—	—	5	#	4	1	3

See notes at end of table.

Table A-36. Percentage of eighth-grade public school students identified as English learners (EL) excluded and assessed in NAEP mathematics, by urban district/jurisdiction: Various years, 2003–22—Continued

Urban district/jurisdiction	2019					2022				
	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations	Identified	Excluded	Assessed	Assessed without accommodations	Assessed with accommodations
Nation (public)	8	1	7	4	3	10	1	9	6	4
Large City ¹ (public)	14	1	13	7	6	17	1	16	10	6
Albuquerque	14	#	14	9	5	23	1	22	17	5
Atlanta	3	#	2	#	2	5	#	5	1	4
Austin	22	1	21	10	11	24	1	23	12	11
Baltimore City	5	1	4	#	4	6	1	5	1	4
Boston	25	3	21	9	13	23	4	19	11	9
Charlotte	9	1	8	4	3	15	2	13	9	4
Chicago	12	1	11	4	7	21	#	20	5	15
Clark County (NV)	15	1	15	11	4	14	1	13	10	3
Cleveland	12	1	11	3	8	10	1	9	4	5
Dallas	47	2	45	33	11	51	1	50	34	16
Denver	26	1	25	18	6	27	1	26	20	6
Detroit	14	1	13	9	4	18	1	17	15	2
District of Columbia (DCPS)	10	1	9	1	8	14	2	12	#	12
Duval County (FL)	5	1	5	1	4	5	#	5	1	4
Fort Worth	26	#	26	19	7	42	1	42	34	8
Fresno	15	1	14	11	3	—	—	—	—	—
Guilford County (NC)	5	#	5	1	3	11	#	11	5	6
Hillsborough County (FL)	9	#	9	#	9	7	1	6	1	5
Houston	23	1	22	15	7	33	2	31	22	10
Jefferson County (KY)	6	1	6	2	4	10	#	9	4	6
Los Angeles	15	1	13	8	5	13	1	12	8	4
Miami-Dade	14	1	13	#	13	11	2	10	2	8
Milwaukee	12	1	11	2	9	17	1	17	5	11
New York City	12	1	11	2	10	12	#	12	2	9
Philadelphia	12	2	10	6	4	15	2	13	4	8
San Diego	10	1	10	7	3	14	1	13	9	3
Shelby County (TN)	6	#	5	2	3	6	#	5	2	3

— Not available.

Rounds to zero.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: In 2022, a new category of "full-time remote student who cannot be assessed" was included in the sample. This category was not included in the denominator when calculating the inclusion/exclusion rates presented in this table. Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2003–22 Mathematics Assessments.

Table A-37. Percentage of fourth- and eighth-grade public school students assessed, excluded, and who are full-time remote and cannot be assessed in NAEP mathematics, by state/jurisdiction: 2022

State/jurisdiction	GRADE 4			GRADE 8		
	Assessed	Excluded	Full-time remote students who cannot be assessed	Assessed	Excluded	Full-time remote students who cannot be assessed
Nation	97	2	1	97	2	1
Nation (public)	97	2	1	97	2	1
Alabama	98	1	#	98	2	1
Alaska	98	1	1	97	1	2
Arizona	98	1	#	97	2	1
Arkansas	98	1	1	97	1	2
California	97	2	1	97	2	1
Colorado	98	2	#	98	1	#
Connecticut	98	2	#	98	2	#
Delaware	96	2	2	96	2	2
Florida	97	3	#	96	3	1
Georgia	97	1	2	96	2	2
Hawaii	94	2	5	92	2	6
Idaho	99	1	#	98	1	1
Illinois	99	1	#	98	1	1
Indiana	99	#	1	97	1	2
Iowa	98	1	#	98	1	1
Kansas	98	1	#	98	1	1
Kentucky	97	2	1	96	2	2
Louisiana	98	2	1	95	2	2
Maine	98	2	#	98	1	1
Maryland	96	1	3	97	2	1
Massachusetts	98	2	#	97	3	#
Michigan	95	3	2	96	2	2
Minnesota	97	2	1	98	2	#
Mississippi	99	1	#	99	1	#
Missouri	97	1	2	96	1	3
Montana	98	1	1	97	1	1
Nebraska	99	1	#	98	2	#
Nevada	98	2	#	98	1	1
New Hampshire	99	1	#	98	1	#
New Jersey	98	2	#	98	2	#
New Mexico	97	2	2	96	2	2
New York	99	1	#	98	2	#
North Carolina	97	2	1	97	1	2
North Dakota	99	1	#	98	1	#
Ohio	99	1	#	98	1	1
Oklahoma	97	2	1	96	2	3
Oregon	97	2	2	95	1	3
Pennsylvania	96	2	2	95	1	4
Rhode Island	98	2	#	98	2	#
South Carolina	97	1	2	95	1	3
South Dakota	99	1	#	98	2	1
Tennessee	98	2	#	98	2	#
Texas	96	3	1	98	2	#
Utah	98	1	1	97	2	1
Vermont	98	1	#	98	2	#
Virginia	96	3	2	94	2	4
Washington	98	2	#	98	1	1
West Virginia	96	2	2	96	1	3
Wisconsin	98	1	#	98	1	1
Wyoming	96	1	3	94	1	4
Other jurisdictions						
District of Columbia	97	2	1	96	3	1
DoDEA ¹	98	2	1	98	1	1
Puerto Rico	99	#	1	99	#	1

Rounds to zero.

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Table A-38. Percentage of fourth- and eighth-grade public school students assessed, excluded, and who are full-time remote and cannot be assessed in NAEP mathematics, by district/jurisdiction: 2022

district/jurisdiction	GRADE 4			GRADE 8		
	Assessed	Excluded	Full-time remote students who cannot be assessed	Assessed	Excluded	Full-time remote students who cannot be assessed
Nation (public)	97	2	1	97	2	1
Large city ¹ (public)	97	3	1	97	2	1
Albuquerque	99	1	#	98	2	#
Atlanta	97	1	2	95	1	4
Austin	97	3	#	98	2	#
Baltimore City	97	1	1	96	3	1
Boston	94	6	#	94	6	#
Charlotte	98	2	#	97	3	#
Chicago	97	3	#	99	1	#
Clark County (NV)	99	1	#	98	1	1
Cleveland	97	3	#	96	4	#
Dallas	95	4	#	98	2	#
Denver	98	2	#	97	3	#
Detroit	95	4	1	94	5	1
District of Columbia (DCPS)	96	3	#	95	4	1
Duval County (FL)	98	2	#	98	2	#
Fort Worth	98	2	#	98	2	#
Guilford County (NC)	99	1	#	98	2	#
Hillsborough County (FL)	97	3	#	98	2	#
Houston	96	3	#	97	3	#
Jefferson County (KY)	96	4	#	99	1	#
Los Angeles	98	2	#	97	2	1
Miami-Dade	97	3	#	96	4	#
Milwaukee	98	1	1	97	2	1
New York City	99	1	#	99	1	#
Philadelphia	96	4	#	96	4	#
San Diego	97	3	#	98	2	#
Shelby County (TN)	96	4	#	97	3	#

Rounds to zero.

¹ Large city includes students from all cities in the nation with populations of 250,000 or more including the participating districts.

NOTE: Beginning with the 2017 assessment, NAEP mathematics results are from a digitally based assessment; prior to 2017, results were from a paper-and-pencil based assessment. DCPS = District of Columbia Public Schools. Beginning in 2009, if the results for charter schools are not included in the school district's Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act, they are excluded from that district's Trial Urban District Assessment (TUDA) results. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

Data Collection

The NAEP 2022 mathematics assessment was conducted from January to March 2022 by contractors to the U.S. Department of Education. Data collection for NAEP involves a collaborative effort among the participating schools, school districts, states, and NAEP staff. To reduce the burden on the participating schools, NAEP field staff perform most of the work associated with the assessment. The cooperation of the schools involves enlisting a school staff member to assist in coordinating selected students and providing space to administer the assessments.

Assessment sessions are scripted so that all students are given the same instructions and opportunity to demonstrate what they know and can do. Assessment administrators conduct the sessions under the supervision of their team's assessment coordinator. Training of assessment administrators focuses on their responsibilities in the classroom and on reading the scripts verbatim to administer the sessions in a uniform manner.

NAEP procedures guarantee the anonymity of participants. The names of students are never removed from the schools. The results of NAEP are reported on the national level and by region of the country, state, and for some urban districts—not by school or individual student.

Scoring

After students have entered their responses on their tablets, the National Assessment of Educational Progress (NAEP) representatives submit the response data from the administrator's tablet to a central server so that the responses can be exported for scoring.

The National Center for Education Statistics (NCES) oversees the scoring of multiple-choice items electronically, and employs human scorers for short and extended constructed-response items. Select-response questions (those with two or more score level categories) were scored algorithmically based on algorithms developed prior to scoring. Algorithmic scoring is the programmatic application of a score rubric for selected-response items with a definable and finite number of responses. NCES is also responsible for developing scoring guides that match criteria in assessment frameworks, recruiting and training qualified scorers, and monitoring scoring consistency.

NCES follows the NAEP scoring process which implements quality control and validity checks at each stage of a five-stage process:

- Rubric Development: Develop scoring guides that match criteria in assessment frameworks.
- Training Materials Development: Develop training materials after receiving actual student responses to the items during a pilot assessment.
- Pilot scoring: Identify and address any mismatches between what NCES expected from students, how they interpreted the item, and what students actually provided.
- Operational Scoring: Seek to develop consensus/agreement by having the team score consistently according to the rubric and training sets.
- Trend Scoring/Monitoring: Maintain consensus by scoring consistently with how items were scored in previous years.

Data Analysis and Scaling

The goal of the analysis of NAEP data is to summarize the performance of groups of students. Initial analysis activities verify the accuracy of the data and data files used in the analysis and provide the first indication of aspects of the data and analysis that require special consideration and attention. The first step is to determine the percentages of students who gave various responses to each cognitive item. Next, the properties of the items are further examined using classical test theory measures of item difficulty and item discrimination. Some of these activities are conducted without student weights or with preliminary student weights, but final student weights are used whenever possible.

After the initial activities are completed, NAEP score scales are created using Item Response Theory (IRT), and scale score distributions are estimated for groups of students. Not all students take the same blocks of items in a NAEP assessment, so results cannot be summarized using the total number of correct item responses. Instead, IRT models are used to describe the relationships between the item responses provided by students and the underlying scale (e.g., mathematics ability). The primary purpose of IRT scaling is to provide a common scale on which performance can be compared even when students receive different blocks of items. Item parameters that are used in the models are estimated from student response data for each item. Different IRT models with different types of item parameters are used to describe multiple-choice items, constructed-response items that are scored simply right or wrong, and complex constructed-response items that have three or more categories.

Because the NAEP design gives each student a small proportion of the pool of assessment items, the assessment cannot provide reliable information about individual student performance. Traditional test scores for individual students, even those based on IRT, would result in misleading estimates of population characteristics, such as student group means and percentages of students at or above a certain scale-score level. However, it is NAEP's goal to estimate these population characteristics. This is accomplished using marginal estimation techniques for latent variables. Under the assumptions of the analysis models, these population estimates will be consistent in the sense that the estimates approach the population values as the sample size increases.

IRT and the NAEP marginal estimation methodology are used to estimate score scales for each of the mathematics content areas at each grade (e.g., at grades 4 and 8, score scales are estimated for number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra). The scales summarize student performance across all four types of questions in the assessment (multiple-choice, select-response, short constructed-response, and extended constructed-response). Each scale score distribution is transformed to a NAEP scale that ranges from 0 to 500. A mathematics composite scale is subsequently created by combining the content area scales. Summary statistics of the scale scores are estimated, and statistical tests are used to make inferences about the comparisons of results for different groups of students or for different assessment years. Finally, NAEP scale score distributions are described via achievement levels and/or item mapping procedures. For more information about NAEP analysis, IRT, and scaling see <https://nces.ed.gov/nationsreportcard/tdw/analysis/>.

Variance Estimation

The averages and percentages in this report are estimates based on samples of students rather than on entire populations. Therefore, the results are subject to a measure of uncertainty, reflected in the standard error of the estimates—a range of up to a few points above or below the score or percentage—which takes into account potential score fluctuation due to sampling error.

Because NAEP uses complex sampling procedures, conventional formulas for estimating sampling variability that assume simple random sampling are inappropriate. NAEP uses a jackknife replication procedure to estimate standard errors. The jackknife standard error provides a reasonable measure of uncertainty for any student information that can be observed without error. However, because each student typically responds to only a few questions within any mathematics content area, the estimated scale score for any single student would be imprecise. In this case, NAEP's marginal estimation methodology is used to describe the performance of groups of students without requiring precise estimates of individual student performance. The estimate of the variance of the students' scale score distributions (which reflect the imprecision due to lack of measurement accuracy) is computed. This component of variability is then included in the standard errors of NAEP scale scores.

When evaluating the trend between 2022 DBA (and beyond) and previous DBA from 2019 and 2017, the error variance estimates will follow NAEP conventional two-part procedure which accounts for measurement error and sampling error. When evaluating the trend between 2022 DBA (and beyond) and the PBA from 2015 and previous years, the error variances require another approach to represent the fact that the DBA assessment results are rooted on a common-population linking in 2017. This approach will account for measurement error, sampling error, and common-population linking.

Drawing Inferences from the NAEP Results

Drawing correct inferences from NAEP assessment results depends on the use of appropriate statistical procedures for comparing assessment results for population groups of interest and following guidelines to ensure the validity of the inferences. Comparisons of different groups of students with respect to scores or percentages of a certain attribute are of primary interest to users of NAEP results. The user is cautioned to rely on the results of statistical tests, rather than on the apparent magnitude of the difference between two numbers when determining whether differences are likely to represent actual differences among the groups in the population.

***t* Test Comparison:** By convention, references to differences in NAEP reports indicate that scores or percentages from two groups are different (e.g., one group performed higher or lower than another group) only when the difference in the point estimates for the groups being compared is statistically significant at an approximate level of .05.

Since 1998, *t* tests have been used for most NAEP comparisons. These tests are more appropriate than *z* tests (based on normal distribution approximations) when the statistics that are being compared are from distributions with proportionally larger extremes (i.e., thicker tails) than the normal distribution. One aspect of the use of *t* tests that contributes to the difficulty in their use for large-scale surveys is the determination of the appropriate degrees of freedom for the *t* distribution of interest.

Multiple Comparison Procedures: The *t* test used by NAEP and the certainty ascribed to intervals (e.g., a 95 percent confidence interval) are based on statistical theory that assumes that only one confidence interval or test of statistical significance is being performed. However, in some sections of a report, many different groups may be compared (i.e., multiple sets of confidence intervals are being analyzed). In sets of confidence intervals, statistical theory indicates that certainty associated with the entire set of intervals is less than that attributable to each individual comparison from the set. To hold the significance level for the set of comparisons at a particular level (e.g., .05), adjustments—called multiple comparison procedures—must be made to the methods.

To ensure that comparisons made using NAEP data are as accurate as possible, error rates are controlled when multiple comparisons are made. When making a number of comparisons in a single analysis, such as analyzing White student performance versus the performance of Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaska Native students, the probability of finding significant differences by chance, for at least one comparison, increases with the family size or number of comparisons. There are several ways to take into account how many related comparisons are being made. In NAEP, the Benjamini-Hochberg False Discovery Rate (FDR) procedure is used to control for this.

Unlike other multiple comparison procedures (e.g., the Bonferroni procedure) that control the familywise error rate (i.e., the probability of making even one false rejection in the set of comparisons), the FDR procedure controls the expected proportion of falsely rejected hypotheses. Familywise procedures are considered conservative for large families of comparisons; therefore the FDR procedure is more suitable for multiple comparisons in NAEP than other procedures. There are two exceptions where the FDR is not applied: when comparing multiple years and when comparing a state's overall results to the nation.

NAEP Reporting Groups

In addition to overall results for each grade assessed, NAEP results are reported for certain student groups provided there are sufficient numbers of students and adequate school representation. Results for some student groups may not be available for certain years, grades, or jurisdictions.

Race/Ethnicity: The school-recorded race/ethnicity variable records the race/ethnicity of each student as reported by the student's school. For 2011 and later assessment years, the mutually exclusive racial/ethnic categories are White, Black, Hispanic, Asian, American Indian/Alaska Native, Native Hawaiian or Other Pacific Islander, and Two or More Races. Black includes African American and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified.

Gender: The gender of the student assessed is taken from school records.

Eligibility for the National School Lunch Program: NAEP first began collecting data in 1996 on student eligibility for NSLP as an indicator of poverty. Based on available school records, students were classified as either currently eligible for the free/reduced-price school lunch or not eligible. Eligibility for free and reduced-price lunches is determined by students' family income in relation to the federally established poverty level. Students from families with incomes at or below 130 percent of the poverty level qualify to receive free lunches and those from families with incomes between 130 and 185 percent of the poverty level qualify to receive reduced-price lunch. For the period July 1, 2021, through June 30, 2022, for a family of four, 130 percent of the poverty level is \$34,450 and 185 percent is \$49,025.

The classification applies only to the school year when the assessment was administered (i.e., the 2021–22 school year) and is not based on eligibility in previous years. If school records were not available, the student was classified as "Information not available." If the school did not participate in the program, all students in that school were classified as Information not available. Because of the improved quality of the data on students' eligibility for NSLP, the percentage of students for whom information was not available has decreased compared to the percentages reported prior to the 2003 assessment.

As a result of the passage of the [Healthy, Hunger-Free Kids Act of 2010](#), schools can use a new universal meal service option, the "Community Eligibility Provision" (CEP). Through CEP, eligible schools can provide meal service to all students at no charge, regardless of economic status and without the need to collect eligibility data through household applications. CEP became available nationwide in the 2014-2015 school year; as a result, the percentage of students in many states categorized as eligible for NSLP may have increased in comparison to 2013. Therefore, readers should interpret NSLP trend results with caution.

Type of Location: Results for four mutually exclusive categories of school location are also reported: city, suburb, town, and rural. The categories are based on standard definitions established by the Federal Office of Management and Budget using population and geographic information from the U.S. Census Bureau. Schools are assigned to these categories in the NCES Common Core of Data based on their physical address. The classification system was revised for 2007; therefore, trend comparisons to previous years are not available. The new locale codes are based on an address's proximity to an urbanized area (a densely settled core with densely settled surrounding areas). This is a change from the original system based on metropolitan statistical areas. To distinguish the two systems, the new system is referred to as "urban-centric locale codes."

Parental Education: Eighth-graders were asked the following two questions, the responses to which were combined to derive the parental education variable:

How far in school did your mother go?

- She did not finish high school.
- She graduated from high school.
- She had some education after high school.
- She graduated from college.
- I don't know.

How far in school did your father go?

- He did not finish high school.
- He graduated from high school.
- He had some education after high school.
- He graduated from college.
- I don't know.

The information was combined into one parental-education reporting variable in the following way:

- If a student indicated the extent of education for only one parent, that level was included in the data. If a student indicated the extent of education for both parents, the higher of the two levels was included in the data.
- If a student responded "I don't know" for both parents, or responded "I don't know" for one parent and did not respond for the other, the parental education level was classified as "I don't know."
- If the student did not respond for either parent, the student was recorded as having provided no response.

Because fourth-graders' responses to the questions tend to be highly variable, the questions are not presented to students at grade 4.

Region of the Country: Prior to 2003, NAEP results were reported for four NAEP-defined regions of the nation: Northeast, Southeast, Central, and West. To align NAEP with other federal data collections, NAEP analysis and reports have used the U.S. Census Bureau's definition of "region" beginning in 2003. The four regions defined by the U.S. Census Bureau are Northeast, Midwest, South, and West. Therefore, trend data by region are not provided for assessment years prior to 2003.

Figure A-1 shows how states are subdivided into these census regions. All 50 states and the District of Columbia are listed. Other jurisdictions, including the Department of Defense Education Activity schools, are not assigned to any region.

Figure A-1. States/jurisdiction within regions of the country defined by the U.S. Census Bureau

Northeast	South	Midwest	West
Connecticut	Alabama	Illinois	Alaska
Maine	Arkansas	Indiana	Arizona
Massachusetts	Delaware	Iowa	California
New Hampshire	District of Columbia	Kansas	Colorado
New Jersey	Florida	Michigan	Hawaii
New York	Georgia	Minnesota	Idaho
Pennsylvania	Kentucky	Missouri	Montana
Rhode Island	Louisiana	Nebraska	Nevada
Vermont	Maryland	North Dakota	New Mexico
	Mississippi	Ohio	Oregon
	North Carolina	South Dakota	Utah
	Oklahoma	Wisconsin	Washington
	South Carolina		Wyoming
	Tennessee		
	Texas		
	Virginia		
	West Virginia		

SOURCE: U.S. Department of Commerce Economics and Statistics Administration, U.S. Census Bureau.

Caution in Interpretations

As previously stated, the NAEP mathematics scale makes it possible to examine relationships between students' performance and various background factors that NAEP measures. However, the relationship between achievement and another variable does not reveal its underlying cause, which may be influenced by a number of other variables. Similarly, the assessments do not reflect the influence of unmeasured variables. The results are most useful when considered in combination with other knowledge about the student population and the educational system, such as trends in instruction, changes in the school-age population, and societal demands and expectations.

Caution in interpretation is also warranted for some small population group estimates. At times in this report, smaller population groups show very large increases or decreases across years in average scores; however, it is necessary to interpret such score changes with extreme caution. The effects of exclusion-rate changes for small student groups may be more marked for small groups than they are for the whole population. In addition, standard errors are often quite large around the score estimates for small groups, which in turn means the standard error around the gain is also large.